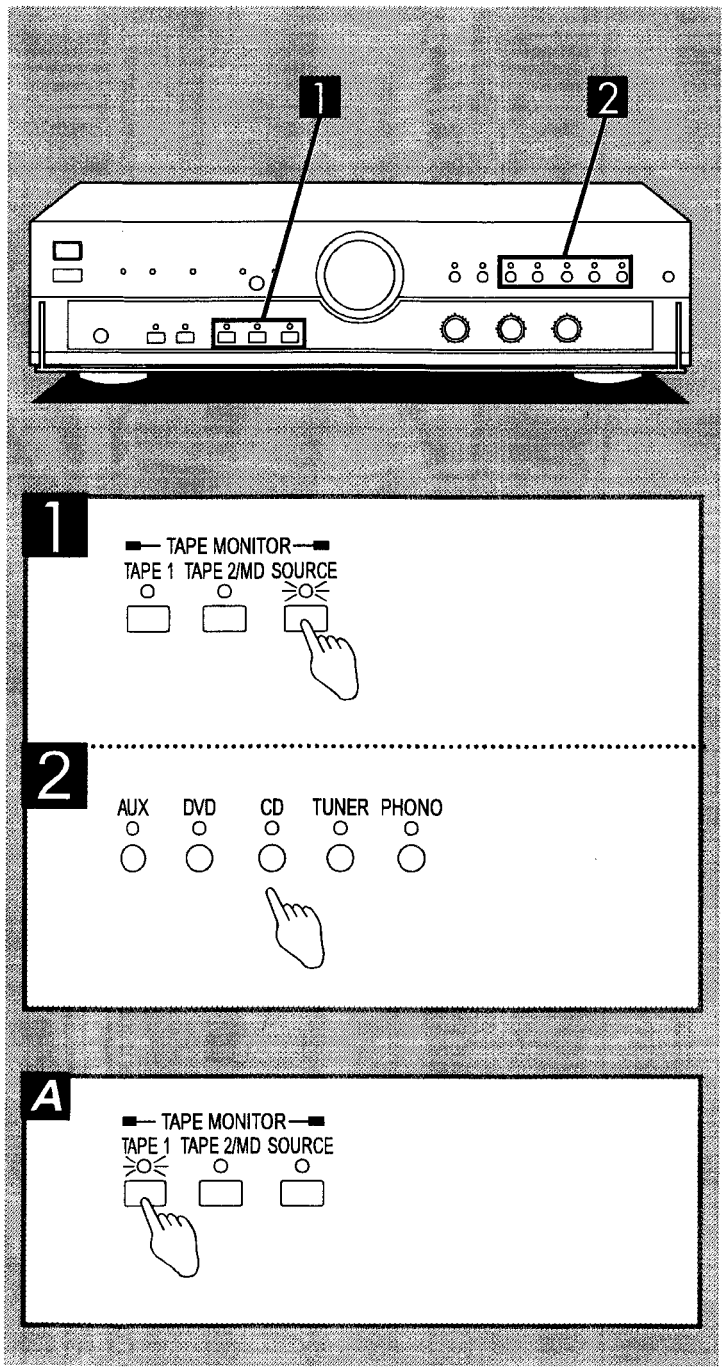
PANASONIC SUA707E

MODEL

SERVICE MANUAL

■ Recording



Connect the tape deck or MD deck to either of the "REC (OUT) (TAPE 1 or TAPE 2/MD)" terminals on the back of the unit.

1 Press [SOURCE].

2 Press on input select button to select the source to be recorded.

AUX: Equipment connected to the AUX terminal.
DVD: DVD player
CD: CD player (or CD changer)
TUNER: Tuner
PHONO: Turntable

3 Begin recording on tape deck or MD deck.

Follow your equipment's operating instructions.

4 Begin the source to be recorded.

Note

Some DVD players need special settings before recording. See the DVD player's operating instructions for details.

Recording between TAPE 1 and TAPE 2/MD

You can record from TAPE 1 to TAPE 2/MD and vice versa.

From TAPE 1 to TAPE 2/MD

① Press [SOURCE].
② Press input select buttons [TAPE 1].
③ Start recording on the recording deck and playback on the playback deck.

From TAPE 2/MD to TAPE 1

In step ②, press input select buttons [TAPE 2/MD].

To check a recording A

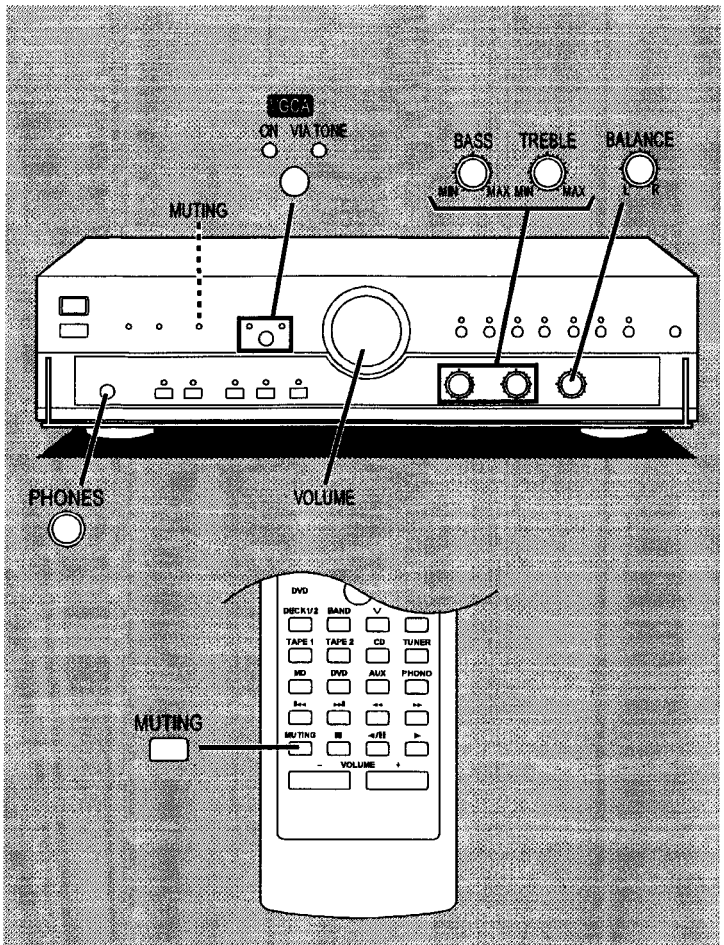
With a tape deck with 3 heads, it is possible to monitor the sound recorded.

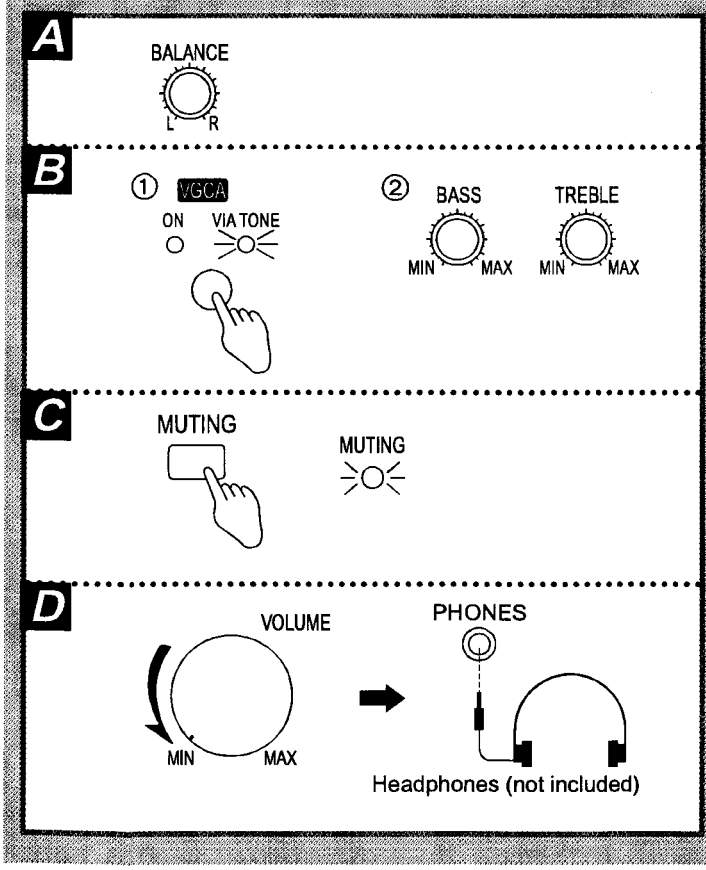
Press [TAPE MONITOR (TAPE 1 or TAPE 2/MD)] and set the monitor switch on the tape deck to "TAPE".

TAPE 1: To monitor the deck connected to the TAPE 1 terminals.
TAPE 2/MD: To monitor the deck connected to the TAPE 2/MD terminals.

Note

When finished using the tape monitor, press [SOURCE] again.





To adjust the sound balance A

Turn [BALANCE] to adjust the left/right sound balance.

The VGCA circuit

This unit features a state-of-the-art variable gain control amplifier (VGCA).
Rather than reducing the volume of the input signal and then amplifying it as was done in the past, this unit uses the VGCA circuit to change the gain of the amplifier itself.
This has resulted in a 10 dB improvement on the S/N ratio of past models.
Leave VGCA on during normal use.
VGCA is switched on at the time of purchase.

To adjust the tone quality B

① Press [VGCA] to turn the "VIA TONE" indicator on.
② Turn [BASS] to adjust the low-frequency sound. Turn [TREBLE] to adjust the high-frequency sound.

Press again to turn VGCA on again. Sound is heard unadjusted.

To mute the sound level C

Remote control only

Press [MUTING].
The "MUTING" indicator on this unit will light up.

Press again to restore the volume indicated by the volume control.
The "MUTING" indicator will turn off.

Note
Muting is also canceled when the unit is turned off.

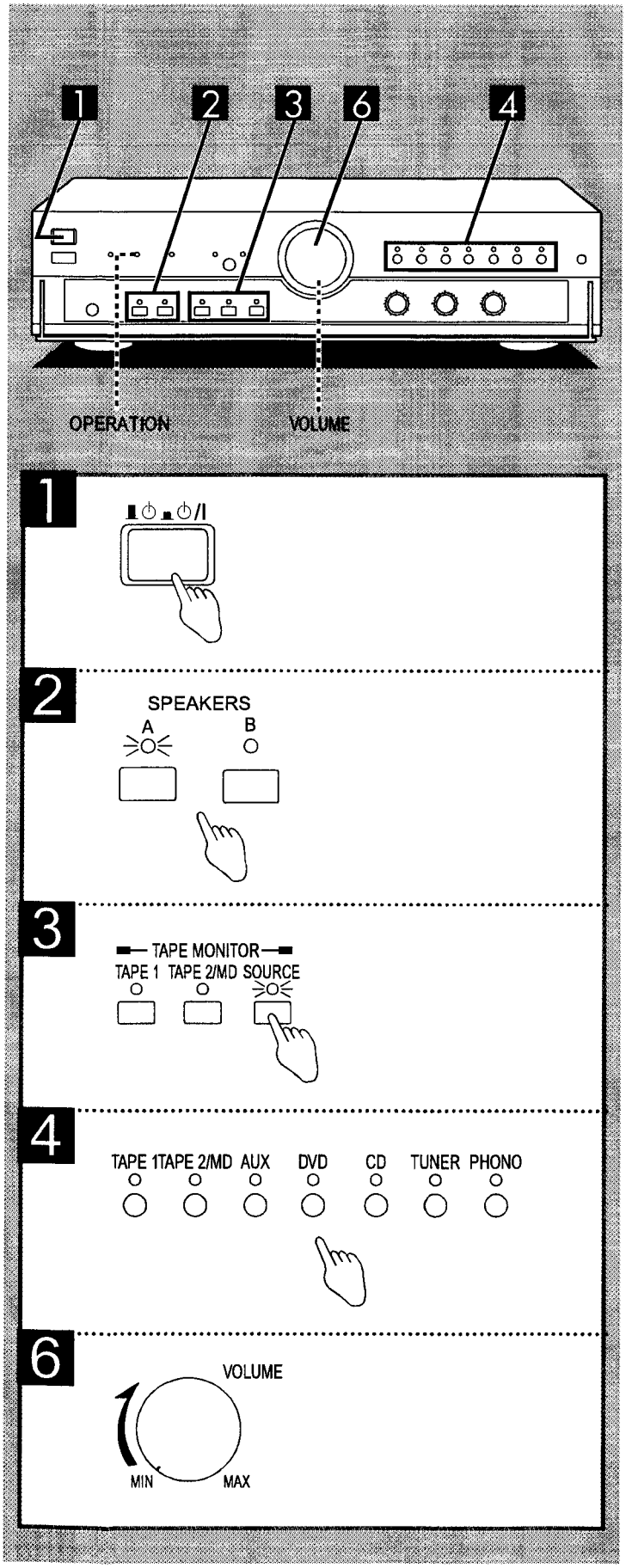
To listen through headphones D

Decrease the volume, and connect the headphones.
Plug type: 6.3 mm stereo

If sound from speakers is not wanted, press SPEAKER [A] and/or [B] to turn off the speaker indicators.

Note
Avoid listening for prolonged periods of time to prevent hearing damage.

■ Listening



Preparation

Before operation, set [VOLUME] to the "MIN" position.

1 Press [⏻ /I].

About 4 seconds later, the "OPERATION" indicator will light up.

2 Select the speakers to be used.

The corresponding speaker indicator will illuminate.

3 Press [SOURCE].

4 Press input select buttons to select the desired source.

The corresponding indicator lights.
TAPE 1: Tape deck
TAPE 2/MD: Second tape deck or MD deck
AUX: Component connected to the "AUX" terminals
DVD: DVD player
CD: CD player (or CD changer)
TUNER: Tuner
PHONO: Turntable

5 Start the desired source.

Refer to the appropriate operating instructions for details.

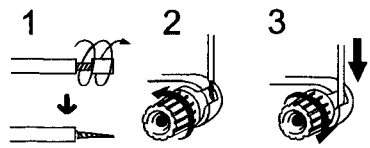
6 Adjust the volume.

After listening is finished

Be sure to reduce the volume level, and turn the unit off by pressing the unit on/off button.

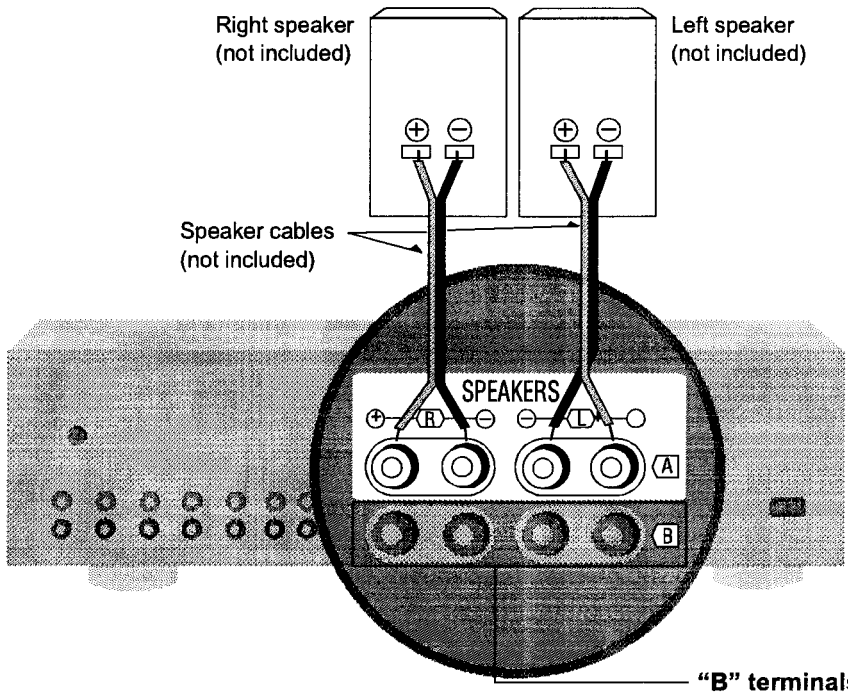
Connecting the speakers

Connecting the speaker cables



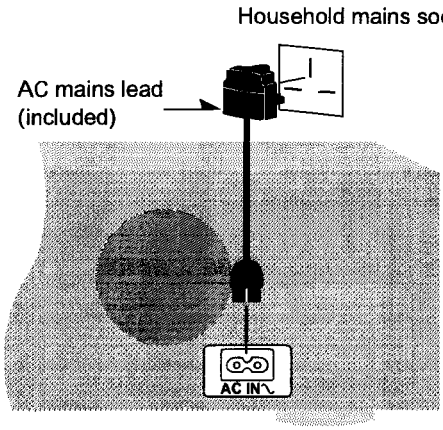
NO

Caution
To prevent damage to circuitry, never short-circuit the positive (+) and negative (–) speaker wires.



Speaker impedance
When only the "A" or only the "B" terminals are used: 4–16 Ω
When the "A" and "B" terminals are used simultaneously: 8–16 Ω

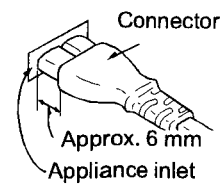
Connecting the power supply



BE SURE TO READ THE CAUTION FOR THE AC MAINS LEAD BEFORE CONNECTION.

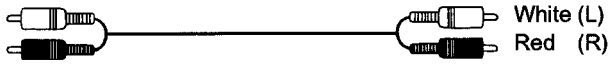
Connect the AC mains lead only after all other connections have been made.

Insertion of connector
Even when the connector is perfectly inserted, depending on the type of inlet used, the front part of the connector may jut out as shown in the drawing.
However there is no problem using the unit.

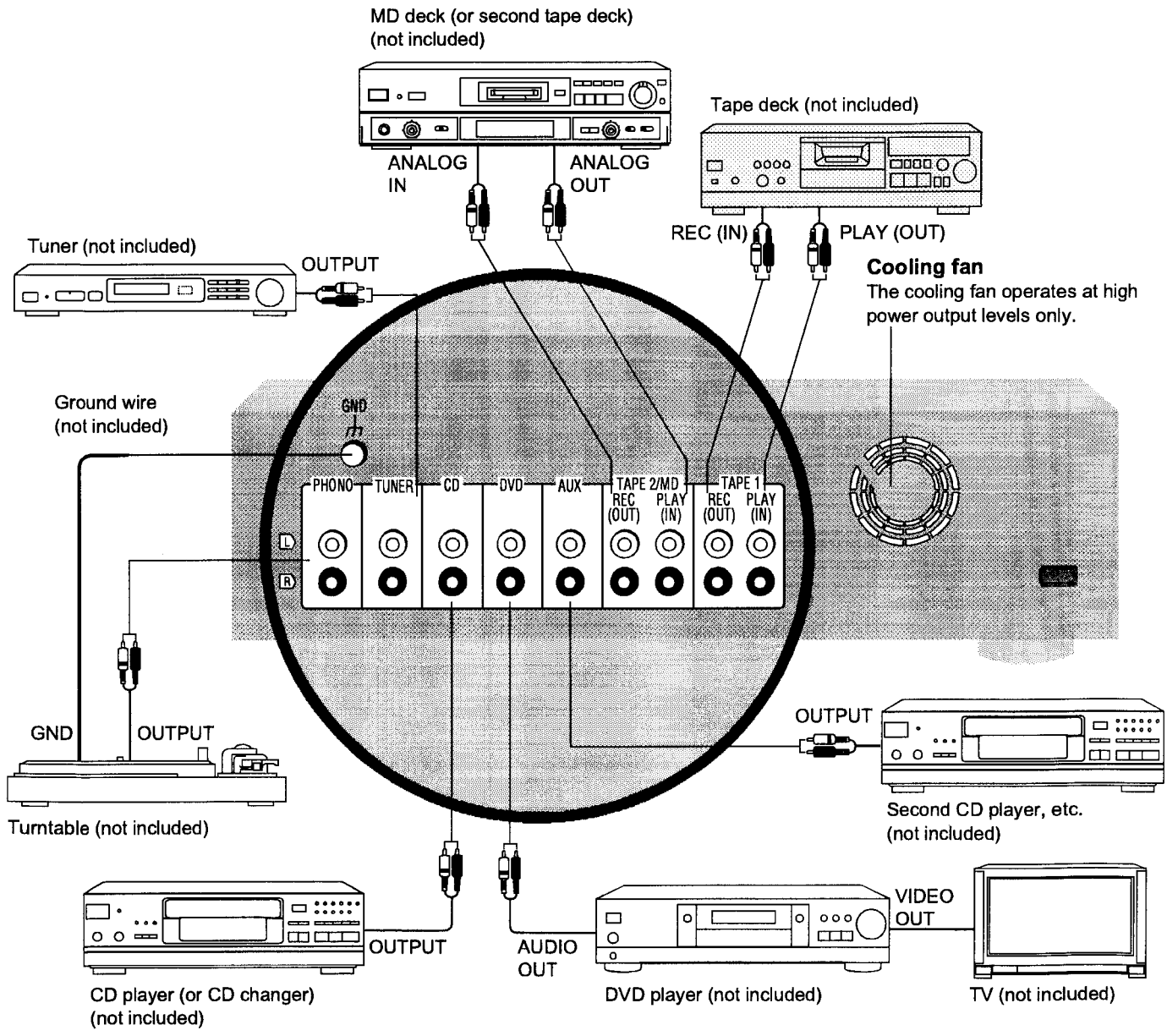


■ Connections

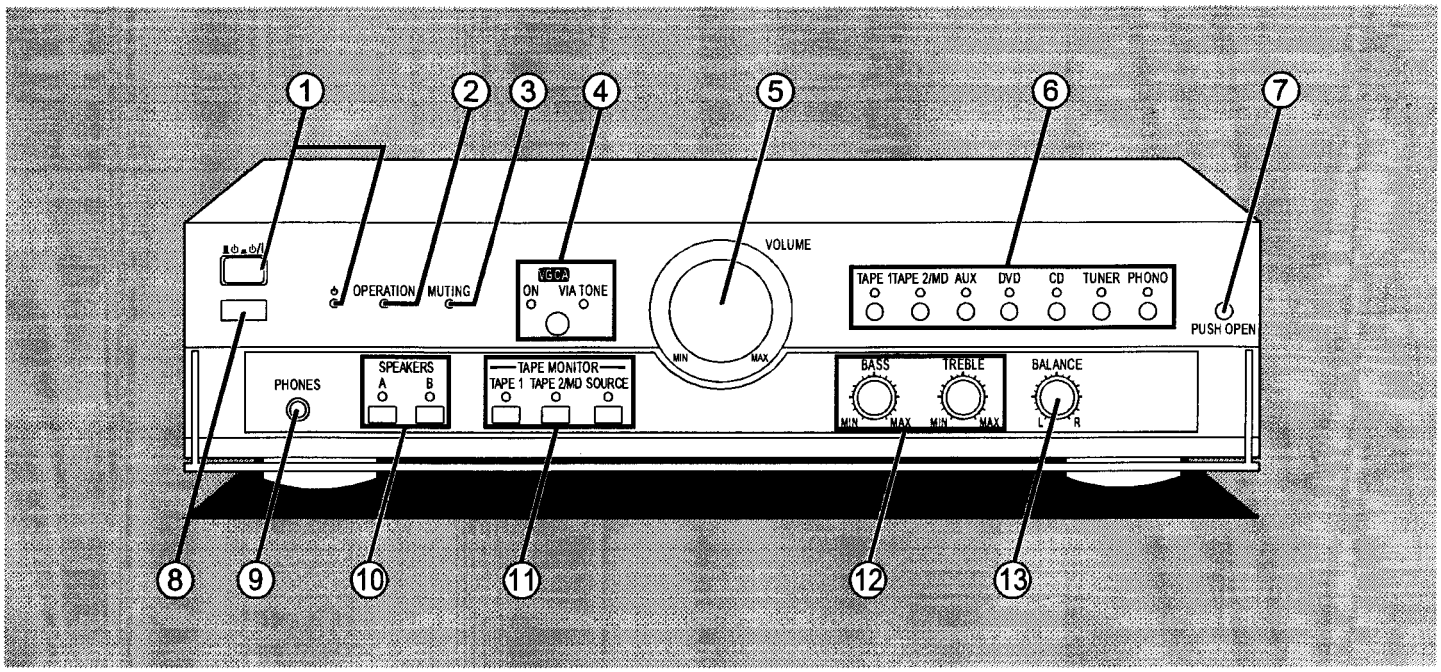
Stereo phono cable (not included)



Connections to other equipment



■ Front Panel Controls



Main unit

No.	Name

① Unit on/off button (⏻ / I) and remote standby indicator (⏻)

Use this button to turn the unit on and off.

⏻ (off): The unit is in standby mode.

⏻ (on): The unit is on. The unit can be turned on and off with the remote control. When the unit is turned off with the remote control it is in remote standby and the indicator lights.

The unit is still using a small amount of power in the standby and remote standby conditions. Standby uses less power.

② Operation indicator (OPERATION)

③ Muting indicator (MUTING)

④ VGCA button/indicators (VGCA)

No.	Name

⑤ Volume control (VOLUME)

⑥ Input select buttons/indicators

⑦ Panel button (PUSH OPEN)

Press to open the clear panel.

Close by hand.

⑧ Remote control signal sensor

⑨ Headphone jack (PHONES)

⑩ Speaker select buttons/indicators (SPEAKERS A, B)

⑪ Tape monitor buttons/indicators (TAPE MONITOR)

⑫ Tone contols (BASS, TREBLE)

⑬ Balance control (BALANCE)

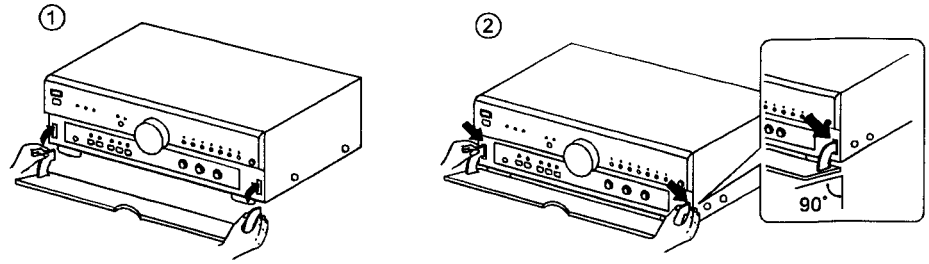
If the clear panel comes off

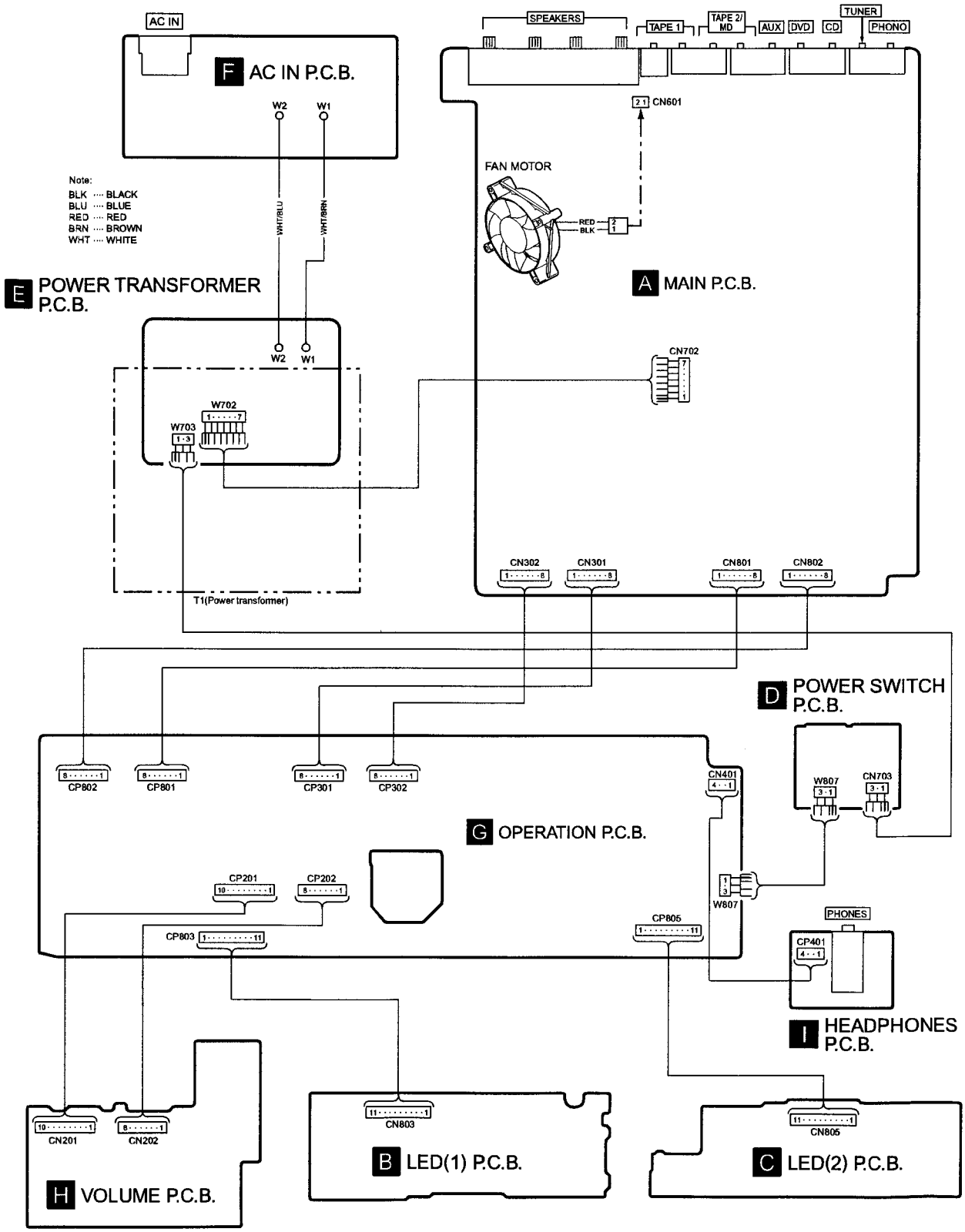
① Insert the panel as shown in the illustration.

② Ensure the panel is parallel to the unit, then press firmly down and in on the levers until they click into place.

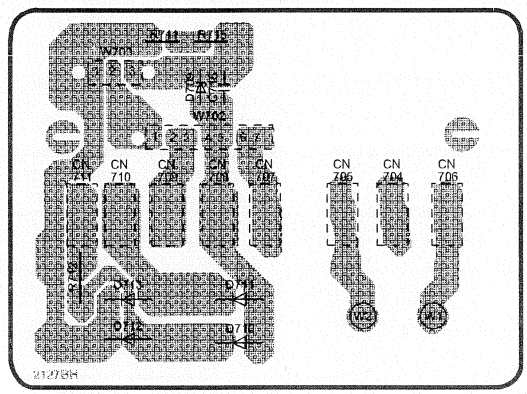
③ Check that the panel now moves correctly.

If it does not, remove it and repeat the above procedure.




AC IN
F AC IN P.C.B.
W2
W1
Note:
BLK ···· BLACK
BLU ···· BLUE
RED ···· RED
BRN ···· BROWN
WHT ···· WHITE
WHT/BLU
WHT/BRN
E POWER TRANSFORMER P.C.B.
W2
W1
W702
W703
T1(Power transformer)
SPEAKERS
TAPE 1
TAPE 2/ MD
AUX
DVD
CD
TUNER
PHONO
CN601
FAN MOTOR
RED
BLK
A MAIN P.C.B.
CN702
CN302
CN301
CN801
CN802
D POWER SWITCH P.C.B.
CP802
CP801
CP301
CP302
CN401
W807
CN703
G OPERATION P.C.B.
CP201
CP202
CP803
CP805
W807
PHONES
CP401
I HEADPHONES P.C.B.
CN201
CN202
H VOLUME P.C.B.
CN803
B LED(1) P.C.B.
CN805
C LED(2) P.C.B.

E POWER TRANSFORMER P.C.B.

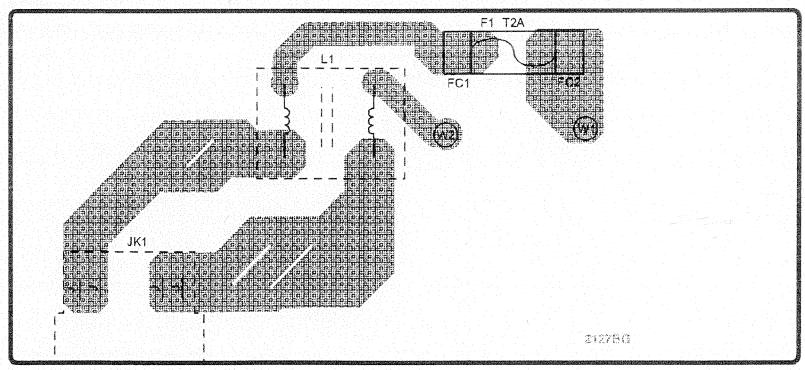


(REP2866D-S ..... [E,EG])
(REP2866E-S ..... [EB])

■ ELECTRICAL PARTS LOCATION

Ref. No.	Lo. No.	Ref. No.	Lo. No.
E POWER TRANSFORMER (A) P.C.B.			
D709	2B	CN709	3B
D710	4C	CN710	3B
D711	3C	CN711	3B
D712	3B	W702	3B
D713	3C	W703	2A
CN704	3C	R711	2B
CN705	3C	R712	3B
CN706	3D	R715	2B
CN707	3C	C715	2B
CN708	3B		
F AC IN P.C.B.			
L1	6C	JK1	7B
F1	6D	W1	6E
FC1	6D	W2	6D
FC2	6D		

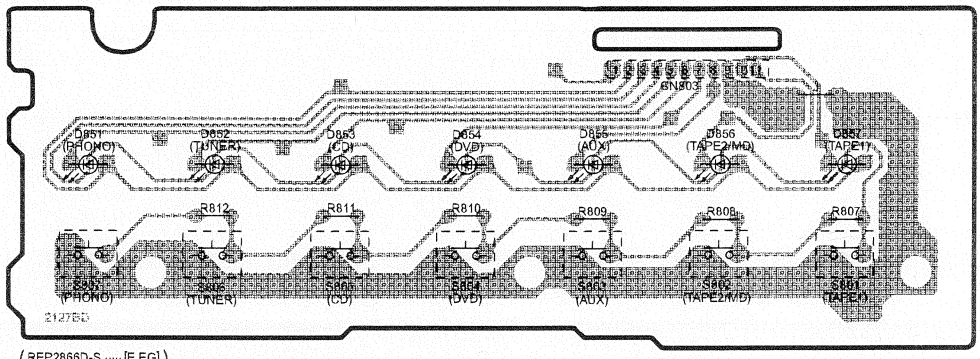
F AC IN P.C.B.



AC IN
(230V, 50Hz ..... [E,EG])
(230-240V, 50Hz ..... [EB])

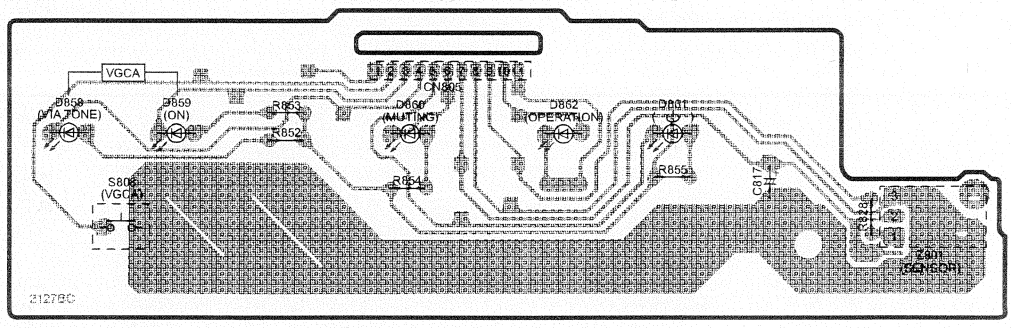
(REP2866D-S ..... [E,EG])
(REP2866E-S ..... [EB])

B LED(1) P.C.B.



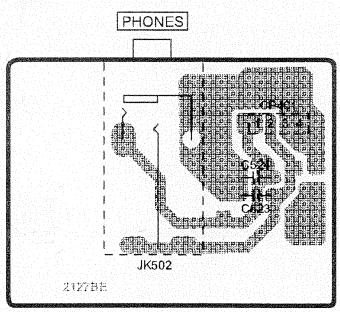
(REP2866D-S ..... [E,EG]
REP2866E-S ..... [EB])

C LED(2) P.C.B.



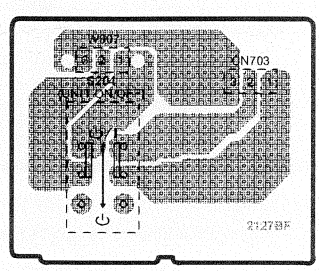
(REP2866D-S ..... [E,EG]
REP2866E-S ..... [EB])

I HEADPHONES P.C.B.



(REP2866D-S ..... [E,EG]
REP2866E-S ..... [EB])

D POWER SWITCH P.C.B.

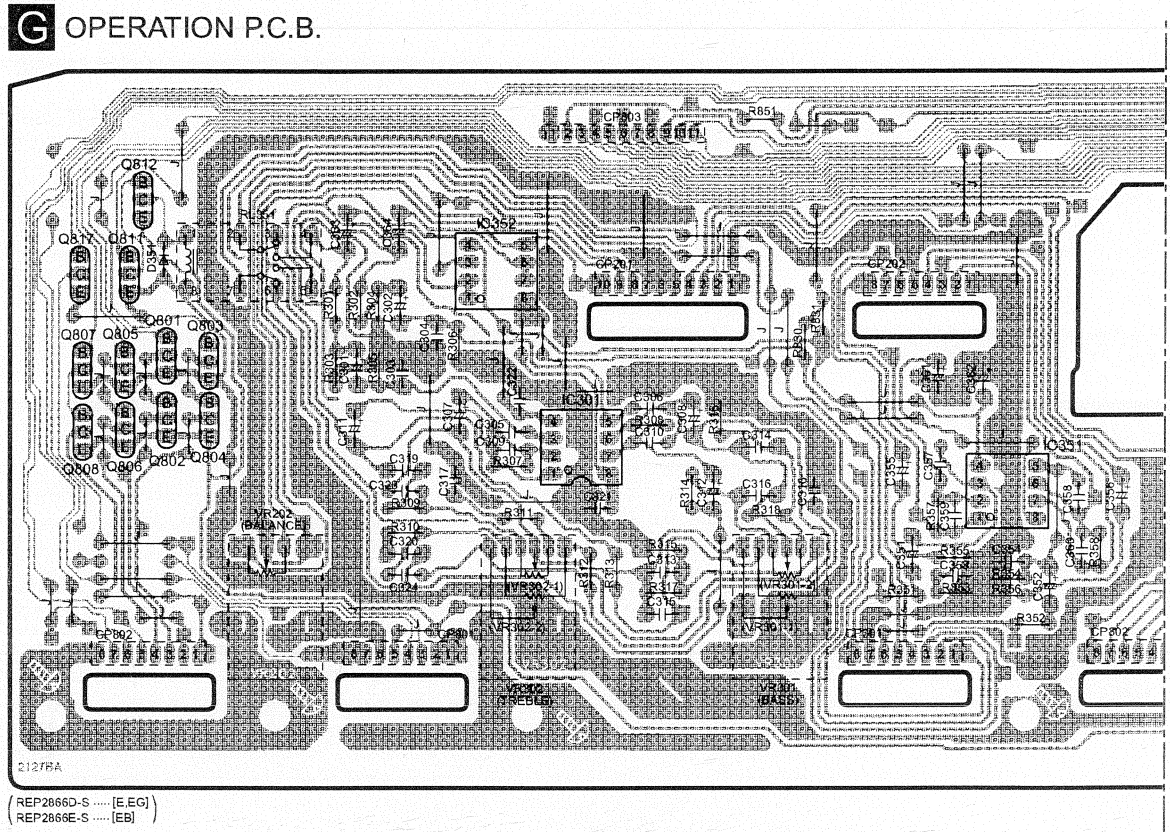


(REP2866D-S ..... [E,EG]
REP2866E-S ..... [EB])

■ ELECTRICAL PARTS LOCATION

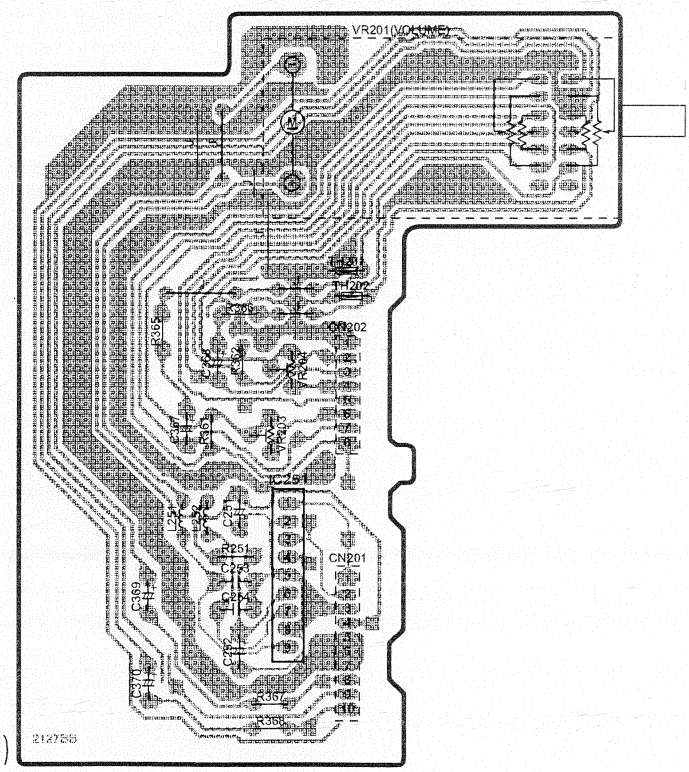
Ref. No.	Lo. No.	Ref. No.	Lo. No.
B LED(1) P.C.B.			
D851	2A	S805	2C
D852	2B	S806	2B
D853	2C	S807	2A
D854	2C	CN803	1D
D855	2D	R807	2E
D856	2E	R808	2E
D857	2E	R809	2D
S801	2E	R810	2C
S802	2E	R811	2C
S803	2D	R812	2B
S804	2C		
C LED(2) P.C.B.			
D858	4A	CN805	4C
D859	4B	R828	4E
D860	4C	R852	4B
D861	4D	R853	4B
D862	4D	R854	4C
Z801	4F	R855	4D
S808	4B	C817	4E
I HEADPHONES P.C.B.			
CP401	6B	C523	7B
JK502	6B	C524	6B
D POWER SWITCH P.C.B.			
S204	7D	W807	7D
CN703	7D		

G OPERATION P.C.B.

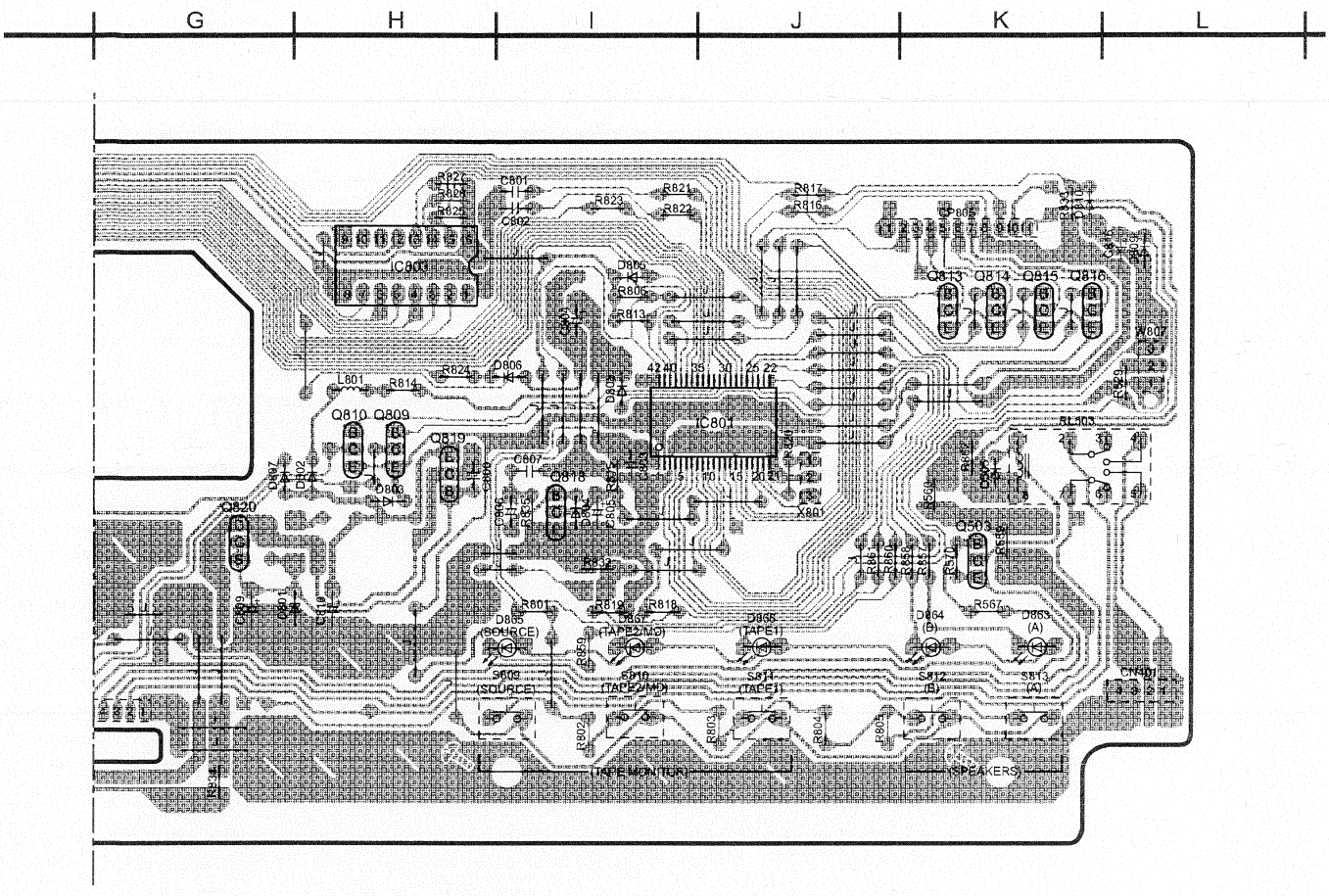


(REP2866D-S ..... [E,EG]
REP2866E-S ..... [EB])

H VOLUME P.C.B.



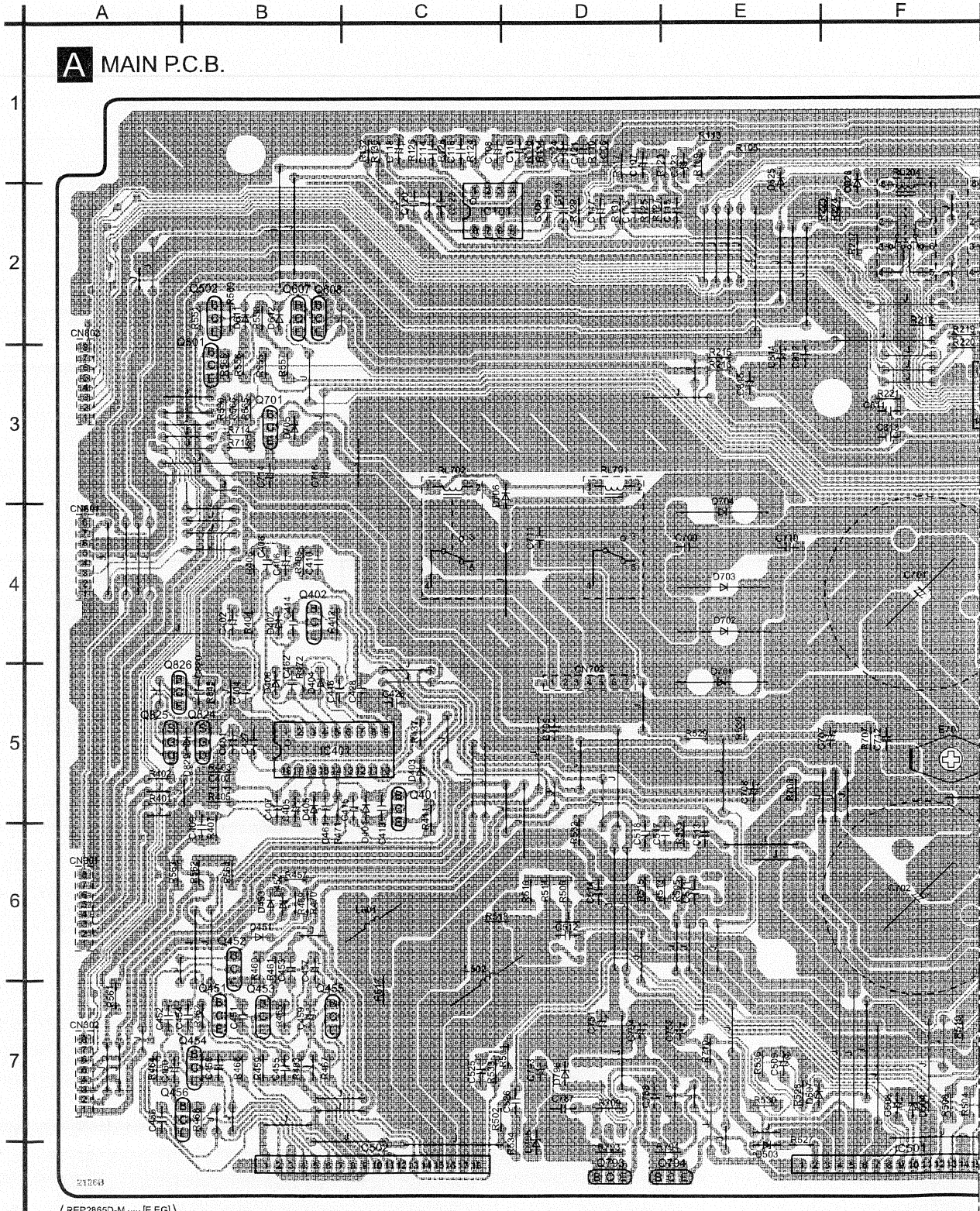
(REP2866D-S ..... [E,EG]
REP2866E-S ..... [EB])



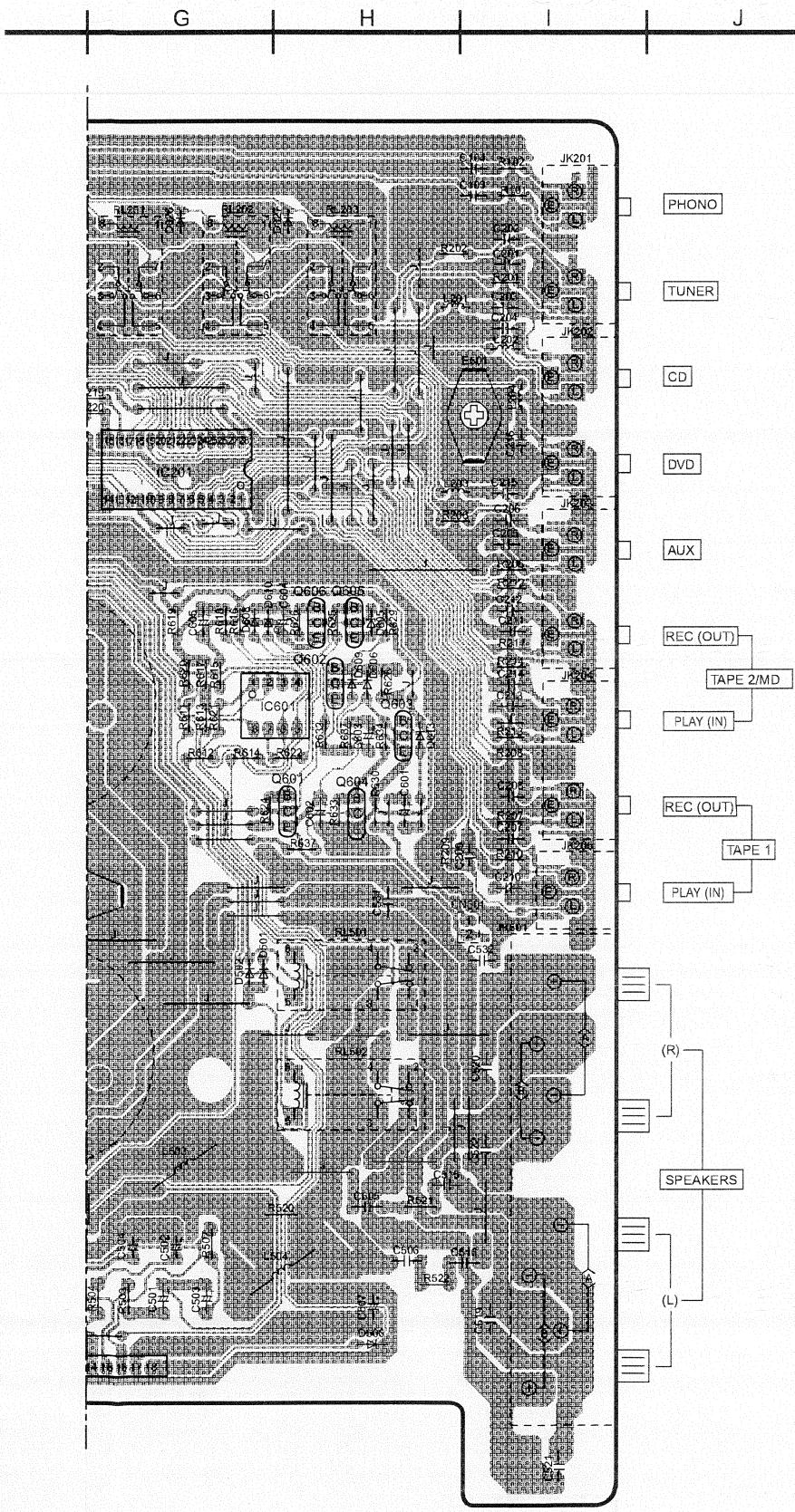
■ ELECTRICAL PARTS LOCATION

Ref. No.	Lo. No.	Ref. No.	Lo. No.	Ref. No.	Lo. No.	Ref. No.	Lo. No.	Ref. No.	Lo. No.	Ref. No.	Lo. No.	Ref. No.	Lo. No.
C OPERATION P.C.B.													
IC301	3D	D351	2B	S813	4K	R314	3D	R816	1J	C301	2C	C353	3E
IC351	3F	D505	3K	RL351	2B	R315	3D	R817	1J	C302	2C	C354	3F
IC352	2C	D801	3H	RL503	3K	R316	3D	R818	3I	C303	2C	C355	3E
IC801	2J	D802	3H	CN401	4L	R317	4D	R819	3I	C304	2C	C356	3F
IC803	2H	D803	3H	CP201	2D	R318	3E	R820	3J	C305	3C	C357	3E
Q503	3K	D804	3I	CP202	2E	R351	4E	R821	1I	C306	3D	C358	3F
Q801	2B	D805	2I	CP301	4E	R352	4F	R822	1I	C307	3C	C359	3E
Q802	3B	D806	2I	CP302	4F	R353	3E	R823	1I	C308	3D	C360	3F
Q803	2B	D807	3G	CP801	4C	R354	3F	R824	2H	C309	3C	C361	3E
Q804	3B	D808	2I	CP802	4B	R355	3E	R825	1H	C310	3D	C362	3F
Q805	2A	D809	2L	CP803	1D	R356	4F	R826	1H	C311	3C	C363	2C
Q806	3A	D810	1K	CP805	1K	R357	3E	R827	1H	C312	3D	C364	2C
Q807	2A	D863	4K	W807	2L	R358	3F	R829	2L	C313	3D	C801	1I
Q808	3A	D864	4K	R301	2B	R559	3K	R830	2E	C314	3E	C802	1I
Q809	3H	D865	4I	R302	2C	R560	3K	R831	2E	C315	4D	C803	3I
Q810	3H	D866	4J	R303	2B	R567	3K	R832	3I	C316	3E	C804	2I
Q811	2A	D867	4I	R304	2C	R570	3K	R833	1K	C317	3C	C805	3I
Q812	2B	VR202	4B	R305	2C	R801	3I	R834	4G	C318	3E	C806	3I
Q813	2K	VR301	4E	R306	2C	R802	4I	R835	3I	C319	3C	C807	3I
Q814	2K	VR302	4C	R307	3C	R803	4J	R851	1E	C320	3C	C808	3H
Q815	2K	L801	2H	R308	3D	R804	4J	R857	3K	C321	3D	C809	3G
Q816	2K	X801	3J	R309	3C	R805	4J	R858	3K	C322	3C	C810	3H
Q817	2A	S809	4I	R310	3C	R806	2I	R859	4I	C323	3C	C816	2L
Q818	3I	S810	4I	R311	3C	R813	2I	R860	3J	C324	3C		
Q819	3H	S811	4J	R312	3D	R814	2H	R861	3J	C351	3E		
Q820	3G	S812	4K	R313	3D	R815	3I	R862	3K	C352	4F		
H VOLUME P.C.B.													
IC251	7D	VR203	7D	CN201	8D	R362	6D	R368	8D	C254	8D	C370	8C
TH201	6D	VR204	7D	CN202	7D	R365	6C	C251	7D	C367	7C		
TH202	6D	L251	7C	R251	7D	R366	6D	C252	8D	C368	6C		
VR201	5D	L252	7C	R361	7C	R367	8D	C253	8D	C369	8C		

A MAIN P.C.B.



(REP2865D-M ..... [E,EG]
REP2865E-M ..... [EB])



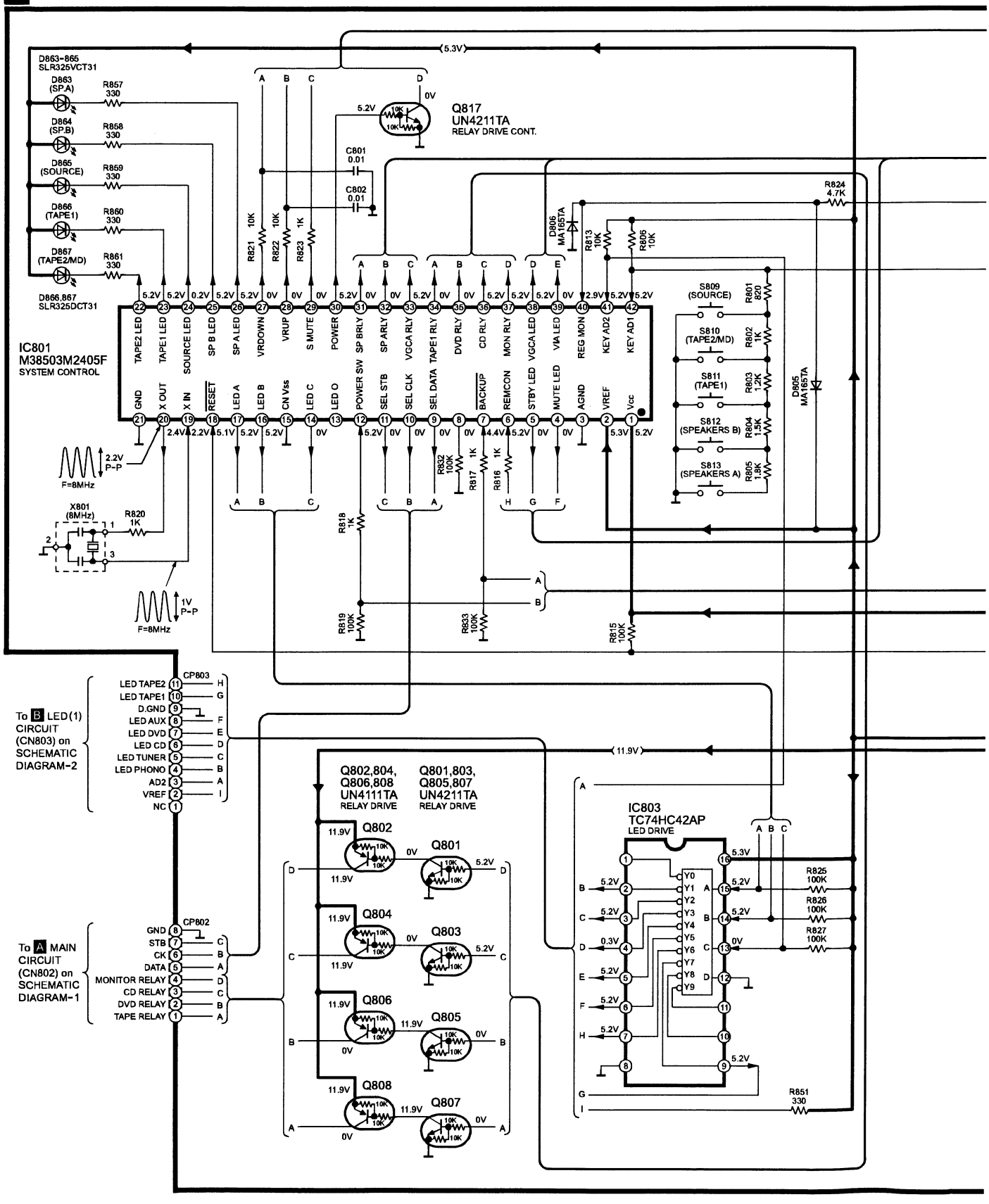
■ELECTRICAL PARTS LOCATION

Ref. No.	Lo. No.	Ref. No.	Lo. No.	Ref. No.	Lo. No.	Ref. No.	Lo. No.
A MAIN P.C.B.							
IC101	2C	JK201	2I	R519	7F	C212	4I
IC201	3G	JK202	3I	R520	7H	C213	4I
IC401	5B	JK203	3I	R521	7H	C214	4I
IC501	8F	JK204	4I	R522	7H	C215	3I
IC502	8C	JK205	5I	R527	8E	C216	3I
IC601	4H	JK501	6I	R528	7E	C401	5B
Q401	5C	E501	3I	R529	5E	C402	4B
Q402	4B	E701	5F	R530	7E	C403	5B
Q451	7B	R101	1I	R531	6E	C404	5B
Q452	6B	R102	1I	R532	6D	C405	5B
Q453	7B	R105	1E	R533	7C	C406	4B
Q454	7B	R106	1D	R534	8D	C407	5B
Q455	7B	R109	1E	R535	5E	C408	4B
Q456	7A	R110	1D	R536	7E	C409	6B
Q501	3B	R113	1E	R537	5H	C410	4B
Q502	2B	R114	1D	R550	3B	C413	5C
Q601	5H	R117	1D	R551	2B	C414	4B
Q602	4H	R118	1D	R555	3B	C415	5C
Q603	4H	R123	1E	R556	3B	C416	5B
Q604	5H	R124	1C	R557	3B	C426	5C
Q605	4H	R125	2D	R558	2B	C427	5B
Q606	4H	R126	1C	R561	7A	C428	5C
Q607	2B	R127	2E	R562	6B	C451	7B
Q608	2B	R128	1C	R563	6A	C452	7A
Q701	3B	R129	2D	R564	6B	C453	6B
Q793	8D	R130	1C	R565	3B	C454	7B
Q794	8E	R131	2D	R566	3B	C455	7B
Q824	5B	R132	1C	R568	3B	C456	7A
Q825	5A	R201	2I	R569	2B	C457	6B
Q826	5A	R202	2H	R611	4G	C458	7B
D401	5C	R205	3I	R612	4G	C459	7B
D402	4B	R206	3H	R613	4G	C460	7A
D403	5C	R207	5I	R614	4G	C461	5B
D404	5B	R208	4I	R615	4G	C462	5B
D405	5B	R209	5H	R616	4G	C501	7G
D406	5B	R210	5I	R617	4G	C502	7G
D406	5B	R211	4I	R618	4G	C503	7G
D451	6B	R212	3I	R619	4G	C504	7G
D452	6B	R213	4I	R620	4G	C505	7H
D453	6B	R214	4I	R621	4G	C506	7H
D501	6G	R215	3E	R622	4H	C507	7H
D502	6G	R216	3E	R624	5G	C508	7F
D503	8E	R217	2F	R625	4H	C509	7E
D504	7F	R218	2F	R626	4H	C511	6E
D506	8H	R219	2F	R628	4H	C512	6D
D507	7E	R220	3F	R629	4H	C513	6E
D605	4H	R221	3F	R630	5H	C514	6D
D606	4H	R223	2F	R632	4H	C515	7H
D608	4G	R224	2F	R633	5H	C516	7I
D609	4H	R401	5A	R634	4H	C517	6E
D610	4G	R402	5A	R637	4H	C518	6D
D611	2B	R403	5B	R707	5F	C519	7I
D612	2B	R404	4B	R708	5E	C520	6I
D613	4H	R405	5B	R709	7D	C521	8I
D701	5E	R406	4B	R710	7E	C522	6I
D702	4E	R407	6B	R713	3B	C525	7C
D703	4E	R408	4B	R714	3B	C526	7D
D704	4E	R411	5C	R793	8D	C531	5H
D705	3B	R412	4B	R794	8E	C532	5I
D706	3D	R437	5C	R845	5B	C601	5H
D795	8D	R457	6B	C103	1I	C602	5H
D796	7D	R459	7B	C104	1I	C603	4H
D825	1E	R460	6B	C107	1D	C604	4H
D826	2G	R461	5B	C108	1C	C605	4G
D827	2H	R462	7B	C109	2D	C701	4F
D828	2F	R463	7B	C110	1D	C702	6F
D829	5A	R464	7A	C113	2D	C705	5D
L201	2H	R465	7B	C114	1C	C707	5F
L202	2I	R466	7B	C115	2E	C708	5E
L203	3H	R467	7B	C116	1C	C709	4E
L204	2I	R468	7B	C117	2D	C710	4E
L501	6C	R469	6B	C118	1C	C711	4D
L502	7C	R470	6B	C119	2D	C712	5F
L503	7G	R471	6B	C120	2C	C714	3B
L504	7H	R472	5B	C121	1D	C716	3B
RL201	2G	R501	7D	C122	2C	C751	7D
RL202	2G	R502	7C	C123	1E	C752	7E
RL203	2H	R503	7G	C124	1D	C787	7D
RL204	2F	R504	7F	C201	2I	C788	7D
RL501	6H	R505	6E	C202	2I	C793	7D
RL502	6H	R506	6D	C203	2I	C794	7D
RL701	4D	R507	7G	C204	2I	C811	3F
RL702	4C	R508	7F	C205	3I	C812	3E
CN301	6A	R513	6E	C206	3I	C813	3F
CN302	7A	R514	6D	C207	5I	C814	3E
CN601	5I	R515	6D	C208	5I	C815	3E
CN702	5D	R516	6D	C209	5I	C820	5B
CN801	4A	R517	7C	C210	5I		
CN802	3A	R518	6C	C211	4I		

SCHEMATIC DIAGRAM-6

G OPERATION CIRCUIT

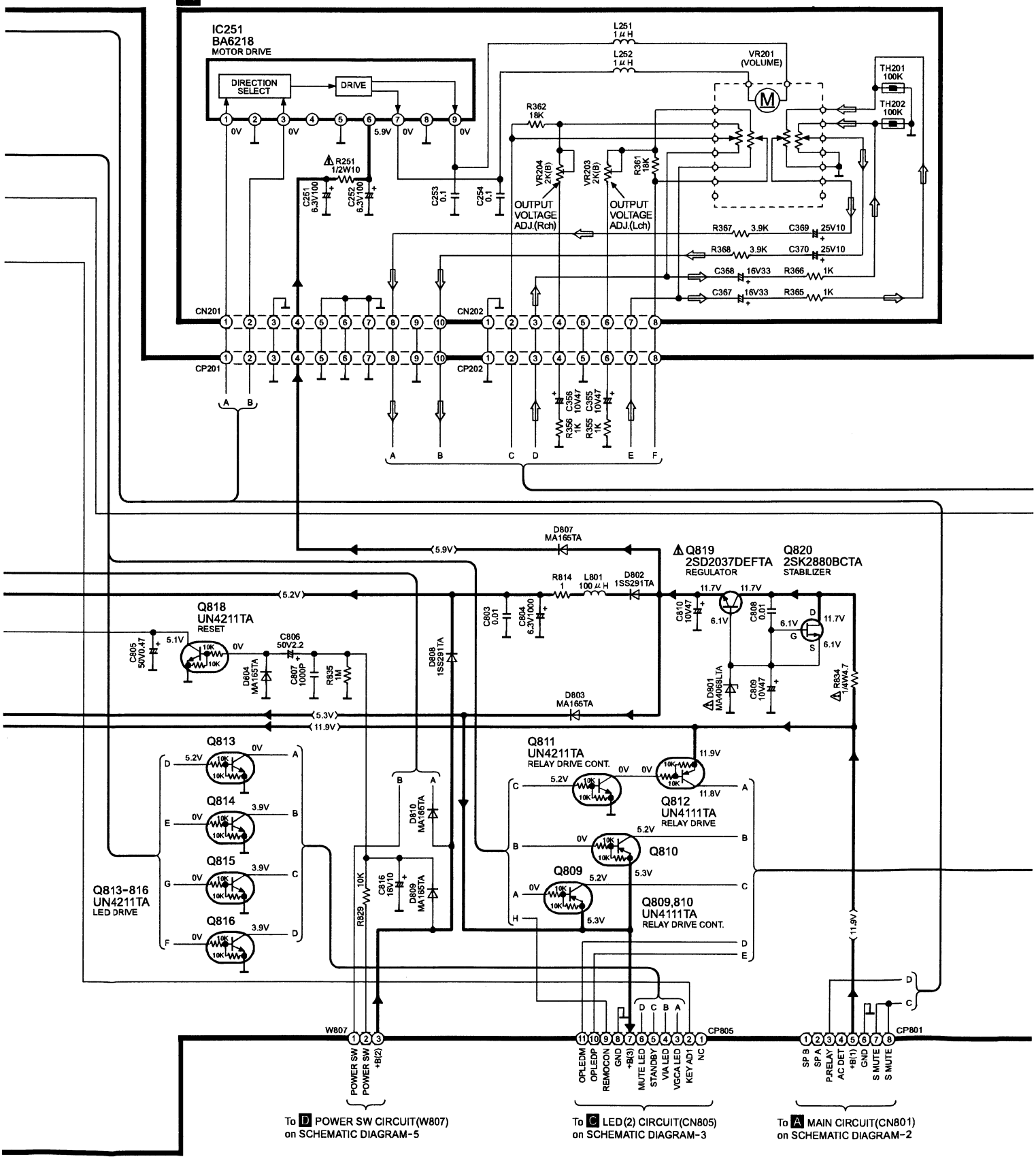
:POSITIVE VOLTAGE LINE



SCHEMATIC DIAGRAM-7

H VOLUME CIRCUIT

:POSITIVE VOLTAGE LINE :PHONO SIGNAL LINE



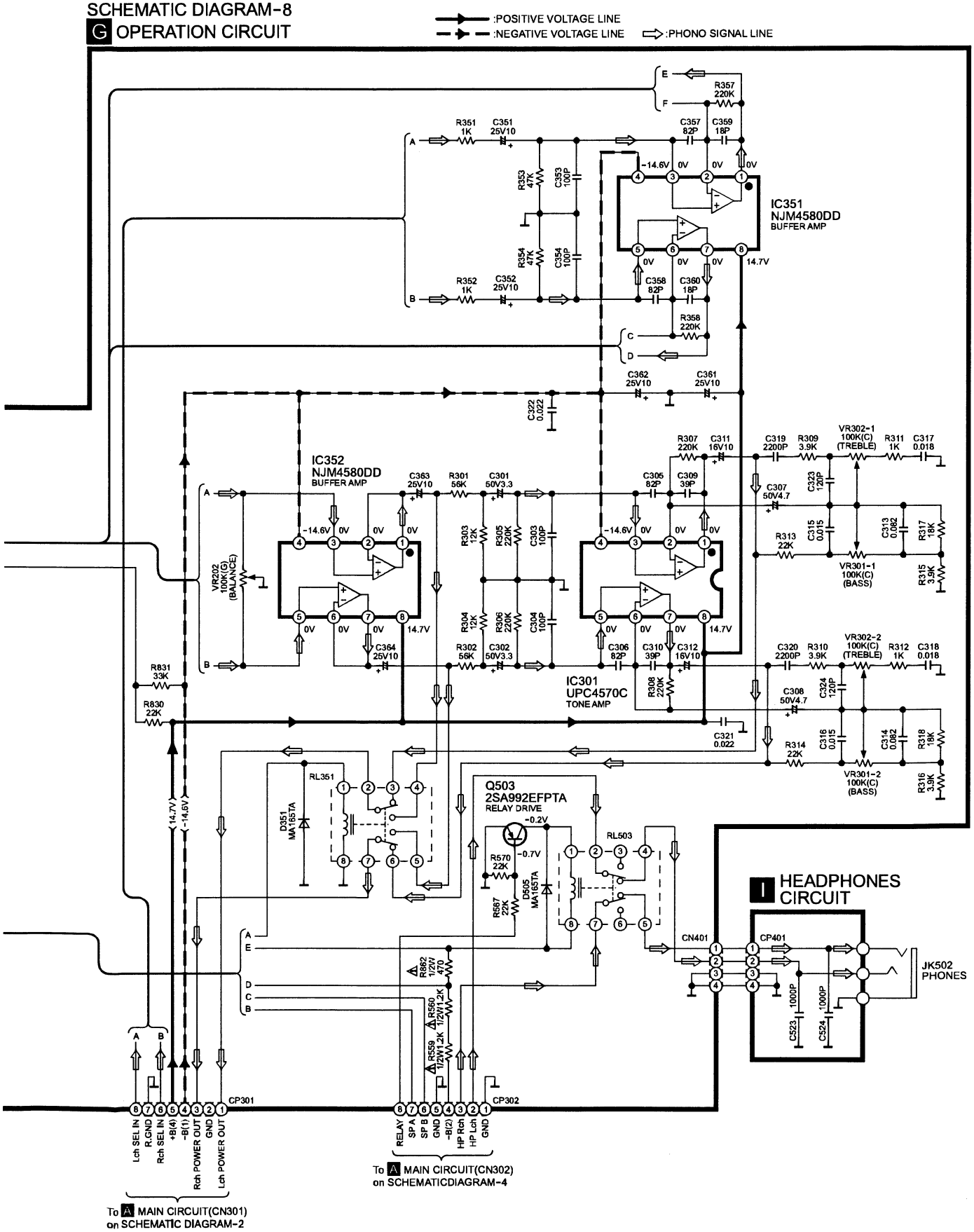
To D POWER SW CIRCUIT(W807) on SCHEMATIC DIAGRAM-5

To C LED(2) CIRCUIT(CN805) on SCHEMATIC DIAGRAM-3

To A MAIN CIRCUIT(CN801) on SCHEMATIC DIAGRAM-2

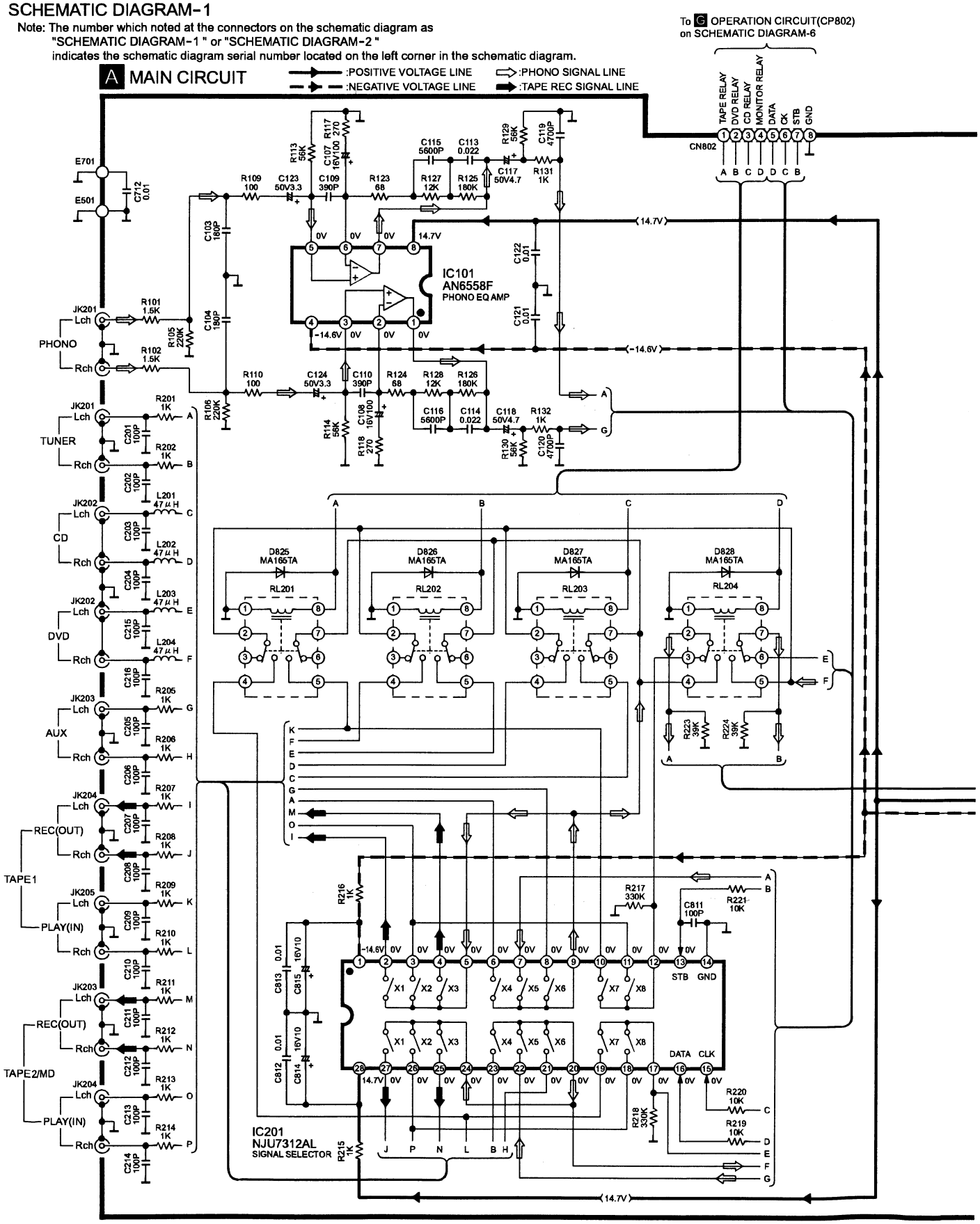
SCHEMATIC DIAGRAM-8

G OPERATION CIRCUIT

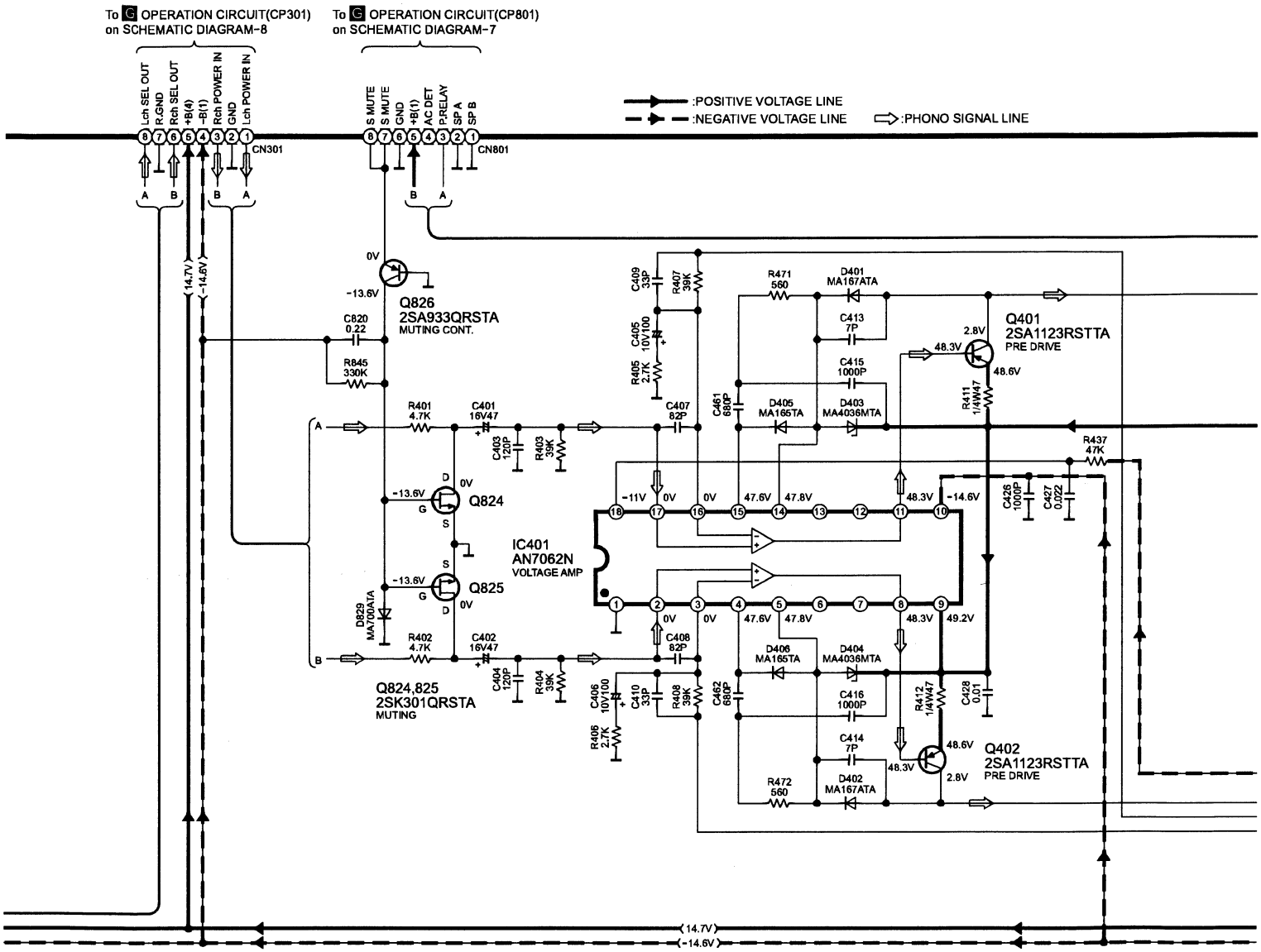


SCHEMATIC DIAGRAM-1

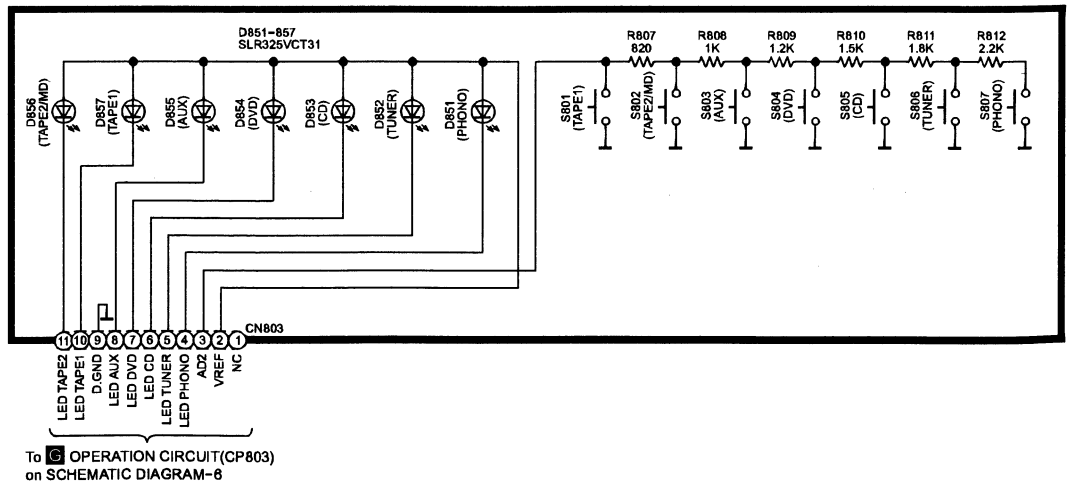
Note: The number which noted at the connectors on the schematic diagram as
"SCHEMATIC DIAGRAM-1 " or "SCHEMATIC DIAGRAM-2 "
indicates the schematic diagram serial number located on the left corner in the schematic diagram.



SCHEMATIC DIAGRAM-2



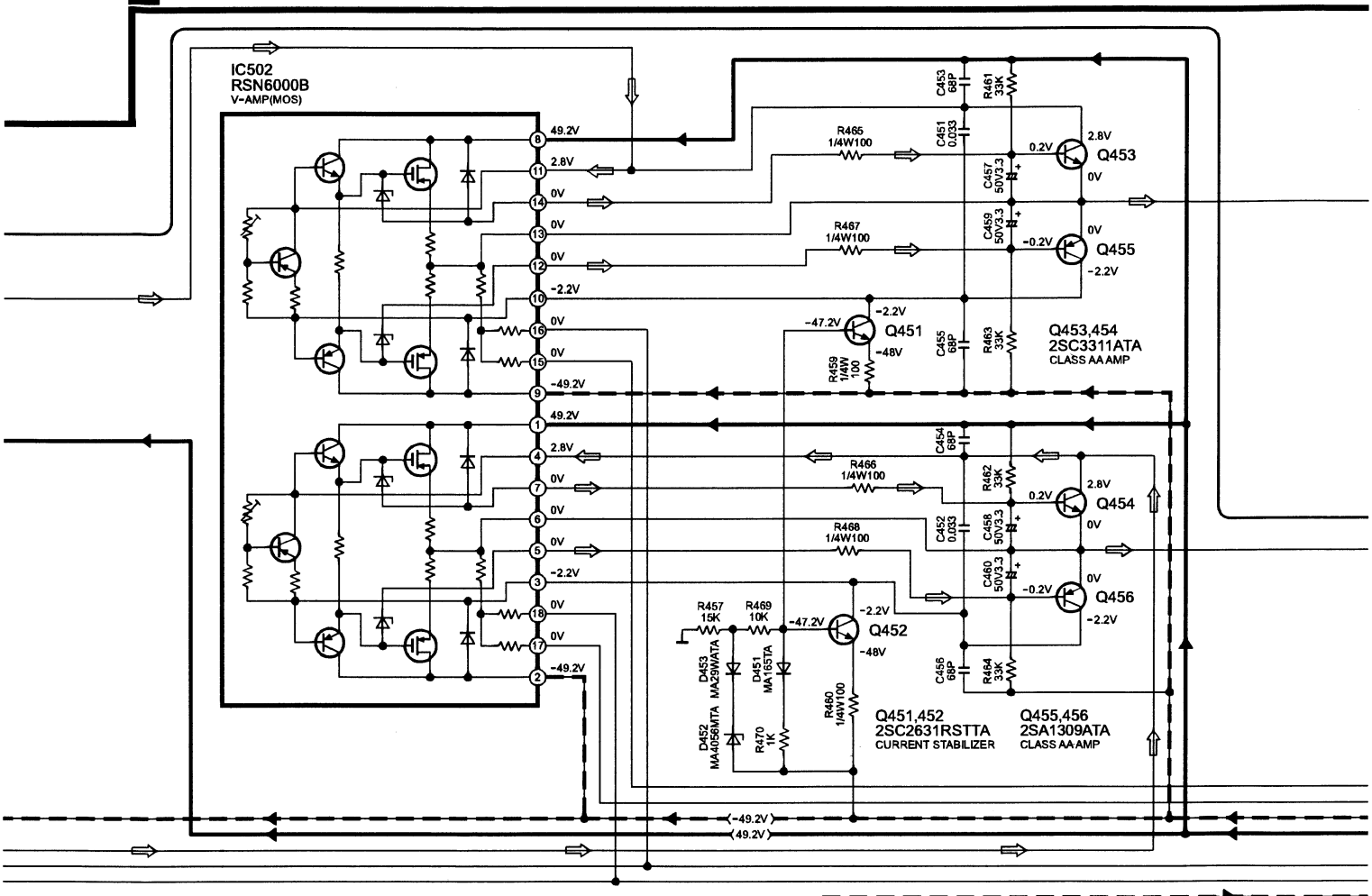
B LED (1) CIRCUIT



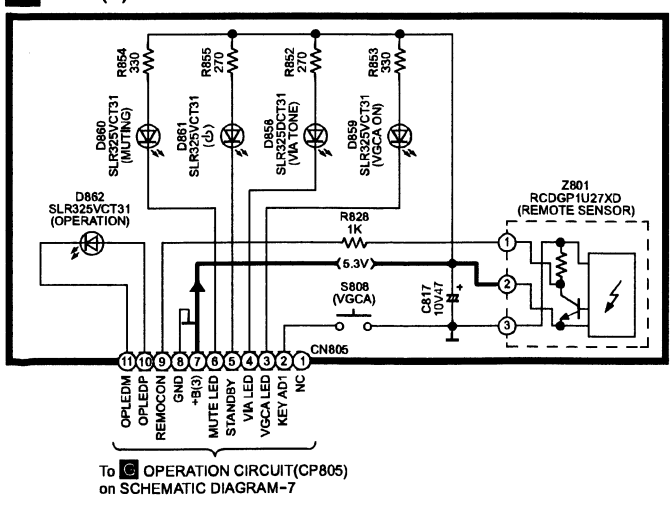
SCHEMATIC DIAGRAM-3

A MAIN CIRCUIT

:POSITIVE VOLTAGE LINE :NEGATIVE VOLTAGE LINE :PHONO SIGNAL LINE

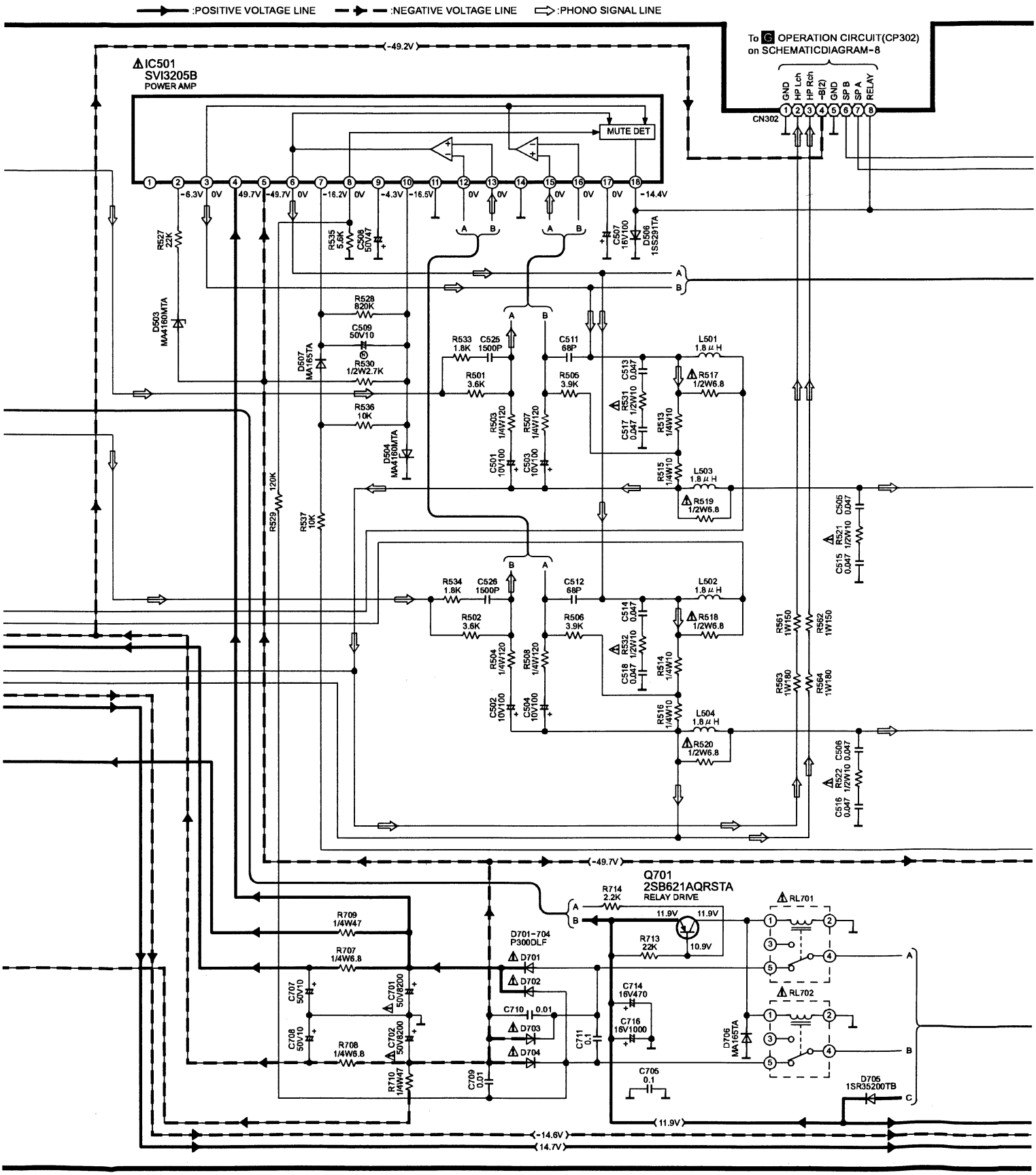


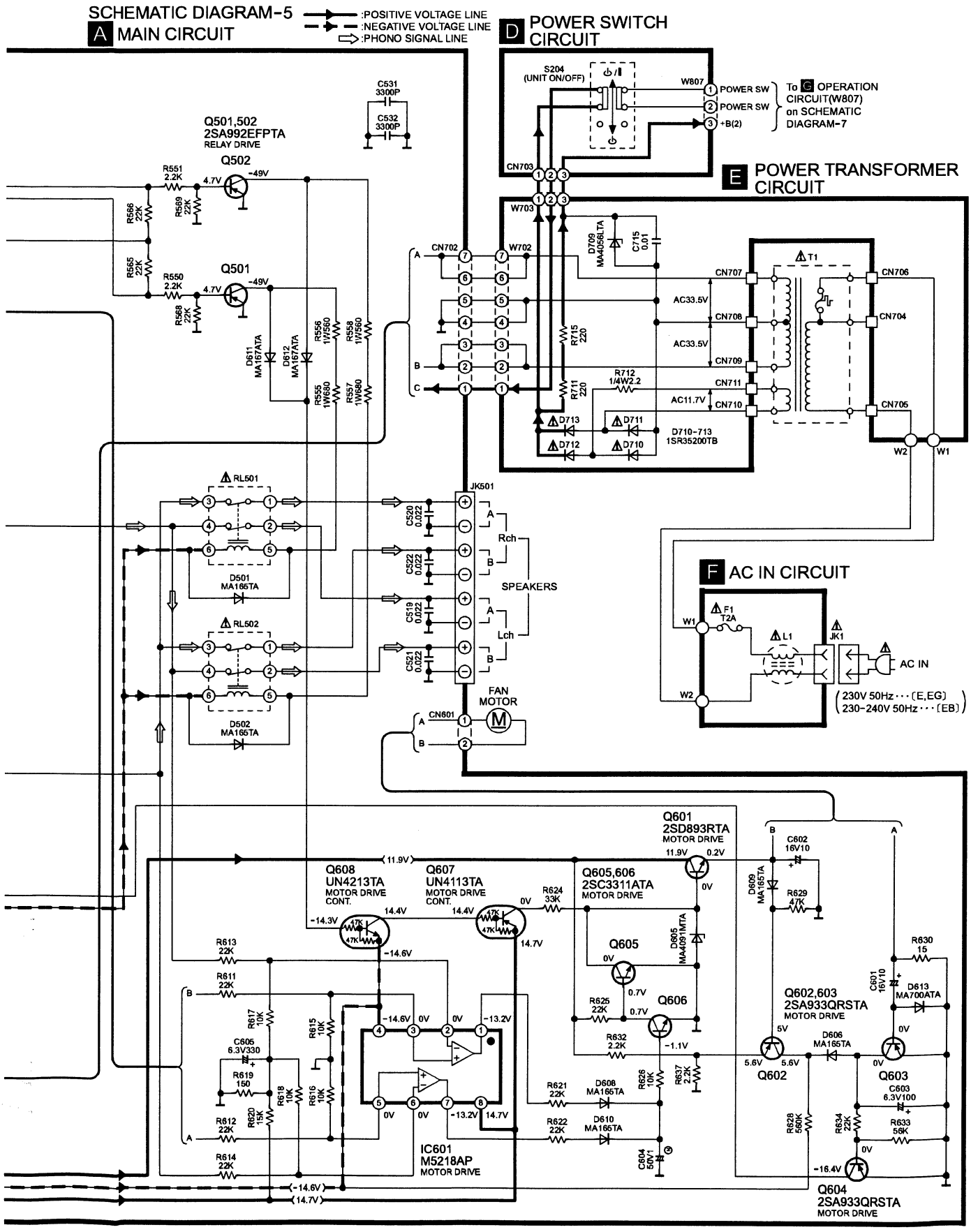
C LED (2) CIRCUIT

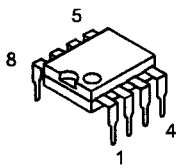
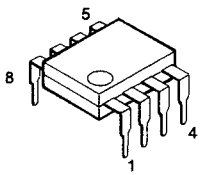
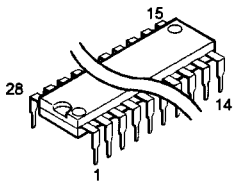
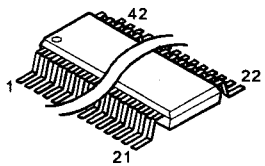
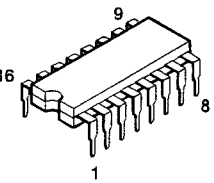
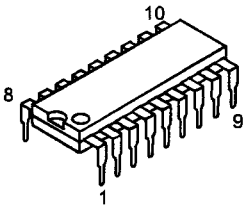
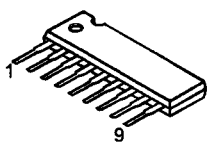
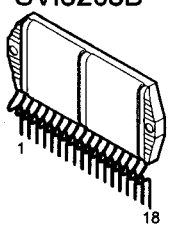
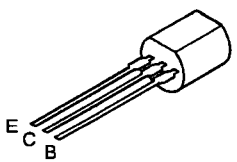
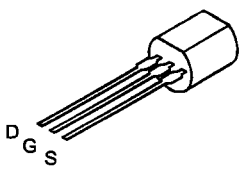
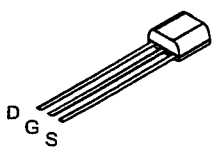
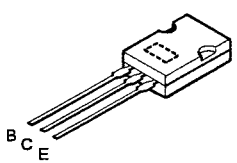
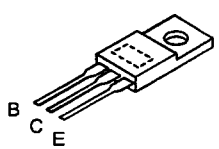
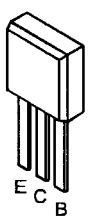
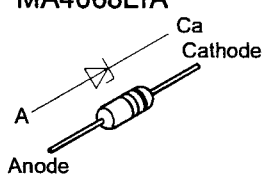
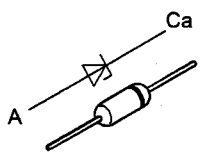
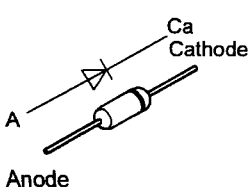
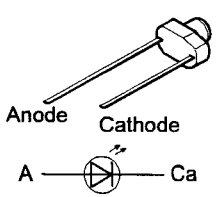
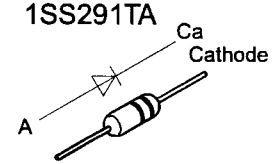
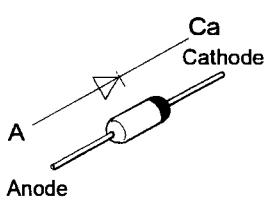
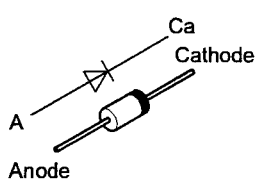
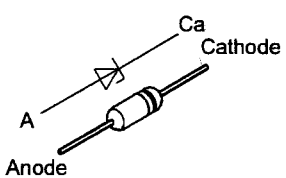


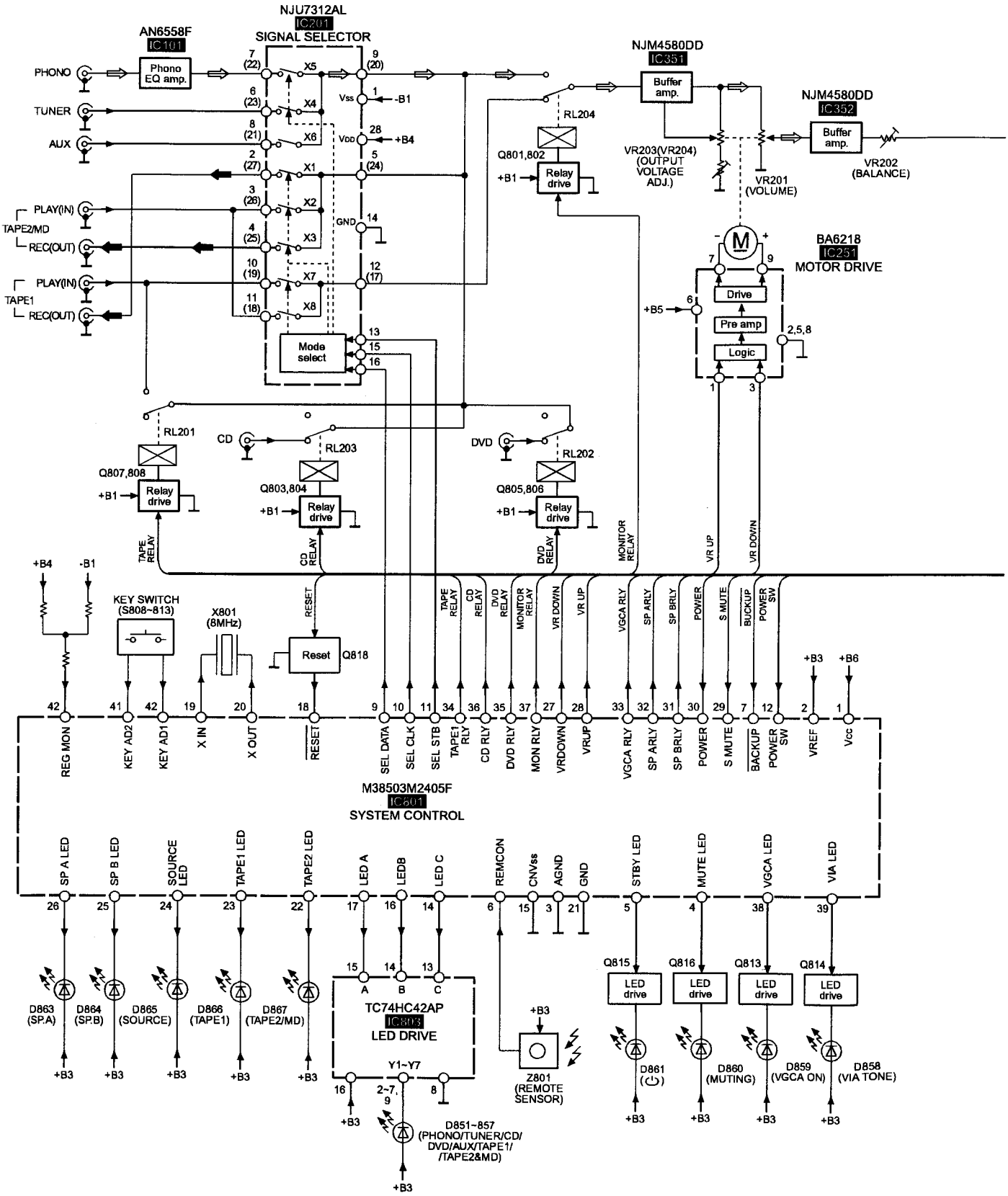
To C OPERATION CIRCUIT(CP805) on SCHEMATIC DIAGRAM-7

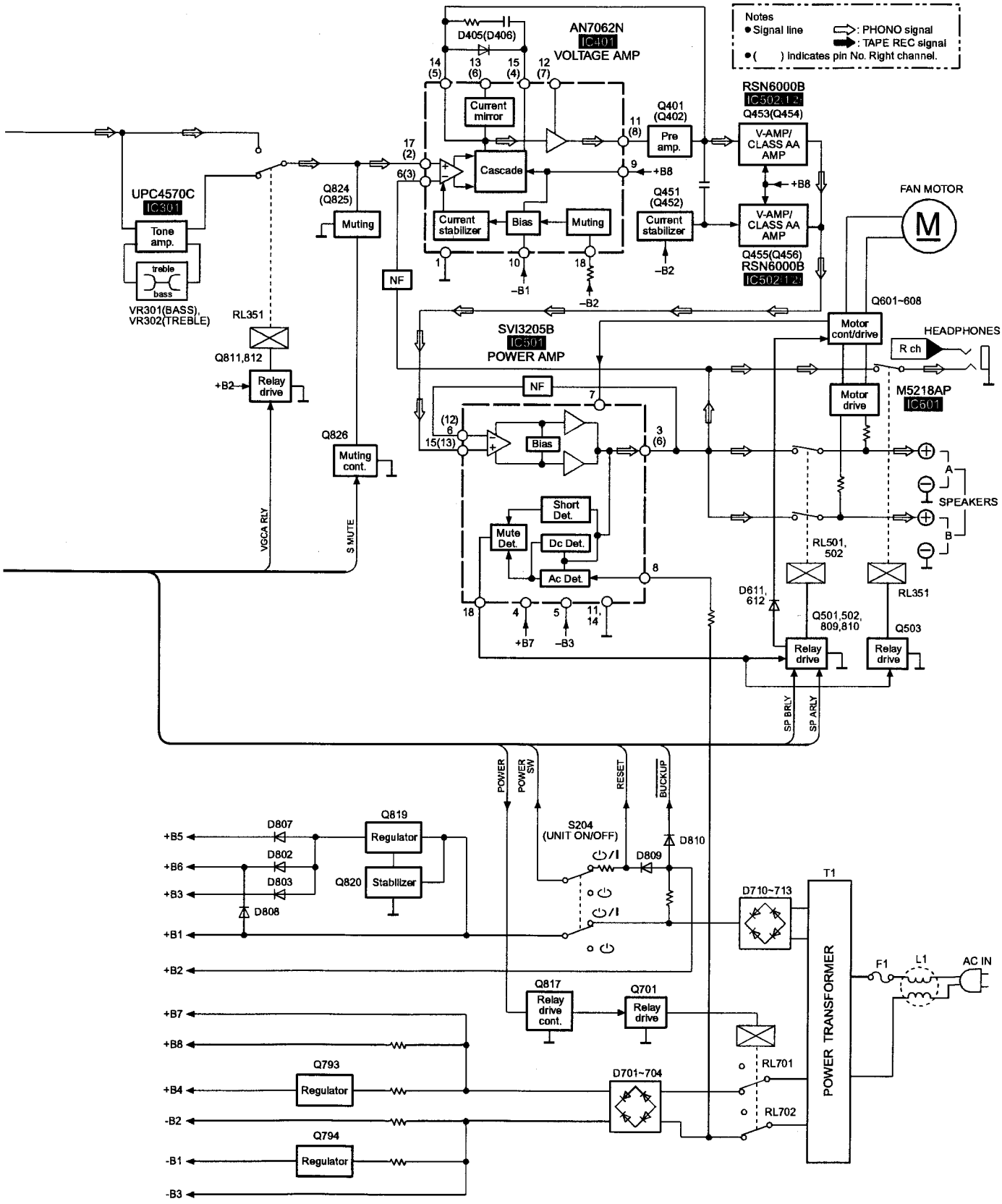
SCHEMATIC DIAGRAM-4




SCHEMATIC DIAGRAM-5
A MAIN CIRCUIT
:POSITIVE VOLTAGE LINE
:NEGATIVE VOLTAGE LINE
:PHONO SIGNAL LINE
D POWER SWITCH CIRCUIT
S204 (UNIT ON/OFF)
W807
POWER SW
POWER SW
+B(2)
To G OPERATION CIRCUIT(W807) on SCHEMATIC DIAGRAM-7
E POWER TRANSFORMER CIRCUIT
F AC IN CIRCUIT
AC IN
230V 50Hz ··· (E,EG)
230-240V 50Hz ··· (EB)
Q501,502
2SA992EFPTA
RELAY DRIVE
Q502
Q501
JK501
SPEAKERS
Rch
Lch
FAN MOTOR
RL501
RL502
D501 MA165TA
D502 MA165TA
D710-713 1SR35200TB
Q601
2SD893RTA
MOTOR DRIVE
Q608
UN4213TA
MOTOR DRIVE CONT.
Q607
UN4113TA
MOTOR DRIVE CONT.
Q605,606
2SC3311ATA
MOTOR DRIVE
Q605
Q606
Q602,603
2SA933QRSTA
MOTOR DRIVE
Q602
Q603
Q604
2SA933QRSTA
MOTOR DRIVE
IC601
M5218AP
MOTOR DRIVE

UPC4570C AN6558F 	NJM4580DD M5218AP 	NJU7312AL 	M38503M2405F 	TC74HC42AP 	AN7062N 
BA6218 	RSN6000B SVI3205B 	 2SA992EFPTA 2SA933QRSTA 2SA1123RSTTA 2SB621AQRSTA 2SC2631RSTTA 2SD893RTA		2SK301QRSTA 	2SK2880BCTA 
2SD2037DEFTA 	2SD2374PQAU 2SB1548PQAU 	 2SA1309ATA 2SC3311ATA UN4111TA UN4113TA UN4211TA UN4213TA		MA4036MTA MA4056MTA MA4068LTA 	MA4091MTA MA4056LTA 
MA165TA MA29WATA 	SLR325DCT31 SLR325VCT31 	MA167ATA MA700ATA 1SS291TA 	1SR35200TB 	P300DLF 	MA4160MTA 


AN6558F
IC101
Phono EQ amp.
NJU7312AL
IC201
SIGNAL SELECTOR
PHONO
TUNER
AUX
PLAY(IN)
TAPE2/MD
REC(OUT)
PLAY(IN)
TAPE1
REC(OUT)
X1
X2
X3
X4
X5
X6
X7
X8
Vss
-B1
VDD
+B4
GND
Mode select
NJM4580DD
IC351
Buffer amp.
NJM4580DD
IC352
Buffer amp.
RL204
Q801,802
Relay drive
+B1
VR203(VR204)
(OUTPUT VOLTAGE ADJ.)
VR201
(VOLUME)
VR202
(BALANCE)
BA6218
IC251
MOTOR DRIVE
Drive
Pre amp
Logic
+B5
2,5,8
RL201
Q807,808
CD
RL203
Q803,804
DVD
RL202
Q805,806
TAPE RELAY
CD RELAY
DVD RELAY
MONITOR RELAY
VR UP
VR DOWN
+B4
-B1
KEY SWITCH
(S808~813)
X801
(8MHz)
RESET
Reset
Q818
REG MON
KEY AD2
KEY AD1
X IN
X OUT
RESET
SEL DATA
SEL CLK
SEL STB
TAPE1 RLY
CD RLY
DVD RLY
MON RLY
VRDOWN
VRUP
VGCA RLY
SP ARLY
SP BRLY
POWER
S MUTE
BUCKUP
POWER SW
VREF
Vcc
+B3
+B6
M38503M2405F
IC601
SYSTEM CONTROL
SP A LED
SP B LED
SOURCE LED
TAPE1 LED
TAPE2 LED
LED A
LED B
LED C
REMCON
CNVss
AGND
GND
STBY LED
MUTE LED
VGCA LED
VIA LED
D863 (SP.A)
D864 (SP.B)
D865 (SOURCE)
D866 (TAPE1)
D867 (TAPE2/MD)
TC74HC42AP
IC803
LED DRIVE
Y1~Y7
D851~857
(PHONO/TUNER/CD/
DVD/AUX/TAPE1/
/TAPE2&MD)
Z801
(REMOTE SENSOR)
Q815
Q816
Q813
Q814
LED drive
D861
D860 (MUTING)
D859 (VGCA ON)
D858 (VIA TONE)


Notes
● Signal line
: PHONO signal
: TAPE REC signal
● ( ) Indicates pin No. Right channel.
AN7062N
IC401
VOLTAGE AMP
D405(D406)
Current mirror
Cascade
Current stabilizer
Bias
Muting
Pre amp.
Q401 (Q402)
Q451 (Q452)
RSN6000B
IC502(1,2)
Q453(Q454)
V-AMP/ CLASS AA AMP
Q455(Q456)
+B8
-B1
-B2
UPC4570C
IC301
Tone amp.
treble
bass
VR301(BASS), VR302(TREBLE)
Q824 (Q825)
Muting
NF
RL351
Q811,812
Relay drive
+B2
VGCA RLY
S MUTE
Q826
Muting cont.
SVI3205B
IC501
POWER AMP
Short Det.
Mute Det.
Dc Det.
Ac Det.
+B7
-B3
FAN MOTOR
Q601~608
Motor cont/drive
HEADPHONES
R ch
M5218AP
IC601
Motor drive
SPEAKERS
A
B
RL501, 502
D611, 612
Q501,502, 809,810
Q503
SP BRLY
SP ARLY
POWER
POWER SW
RESET
BUCKUP
S204
(UNIT ON/OFF)
D807
D802
D803
D808
Q819
Regulator
Q820
Stablizer
D809
D810
+B5
+B6
+B3
+B1
+B2
+B7
+B8
+B4
-B2
-B1
-B3
Q817
Relay drive cont.
Q701
Relay drive
Q793
Regulator
Q794
Regulator
D701~704
D710~713
T1
POWER TRANSFORMER
RL701
RL702
F1
L1
AC IN

(For United Kingdom)

("EB" area code model only)

For your safety, please read the following text carefully.

This appliance is supplied with a moulded three pin mains plug for your safety and convenience.
A 5-ampere fuse is fitted in this plug.
Should the fuse need to be replaced please ensure that the replacement fuse has a rating of 5-ampere and that it is approved by ASTA or BSI to BS1362.
Check for the ASTA mark ⓐ or the BSI mark ⓚ on the body of the fuse.

If the plug contains a removable fuse cover you must ensure that it is refitted when the fuse is replaced.
If you lose the fuse cover the plug must not be used until a replacement cover is obtained.
A replacement fuse cover can be purchased from your local dealer.

CAUTION!
IF THE FITTED MOULDED PLUG IS UNSUITABLE FOR THE SOCKET OUTLET IN YOUR HOME THEN THE FUSE SHOULD BE REMOVED AND THE PLUG CUT OFF AND DISPOSED OF SAFELY.
THERE IS A DANGER OF SEVERE ELECTRICAL SHOCK IF THE CUT OFF PLUG IS INSERTED INTO ANY 13-AMPERE SOCKET.

If a new plug is to be fitted please observe the wiring code as shown below.
If in any doubt please consult a qualified electrician.

IMPORTANT

The wires in this mains lead are coloured in accordance with the following code:
Blue: Neutral, Brown: Live.
As these colours may not correspond with the coloured markings identifying the terminals in your plug, proceed as follows:
The wire which is coloured Blue must be connected to the terminal which is marked with the letter N or coloured Black or Blue.
The wire which is coloured Brown must be connected to the terminal which is marked with the letter L or coloured Brown or Red.

WARNING: DO NOT CONNECT EITHER WIRE TO THE EARTH TERMINAL WHICH IS MARKED WITH THE LETTER E, BY THE EARTH SYMBOL ⏚ OR COLOURED GREEN OR GREEN/YELLOW.

THIS PLUG IS NOT WATERPROOF—KEEP DRY.

Before use

Remove the connector cover.

How to replace the fuse

The location of the fuse differ according to the type of AC mains plug (figures A and B). Confirm the AC mains plug fitted and follow the instructions below.
Illustrations may differ from actual AC mains plug.

1. Open the fuse cover with a screwdriver.

Figure A

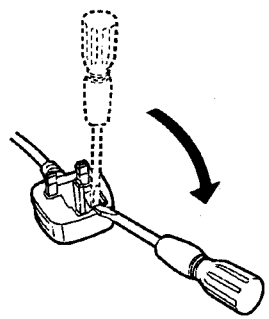
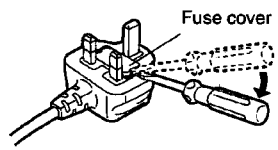


Figure B



2. Replace the fuse and close or attach the fuse cover.

Figure A

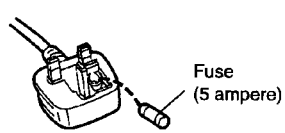
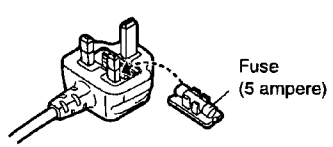
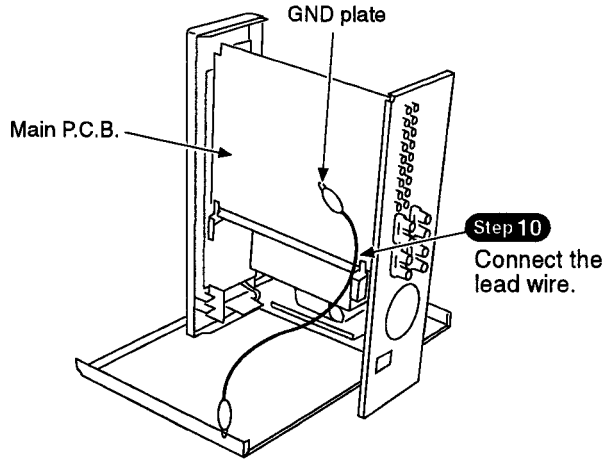


Figure B



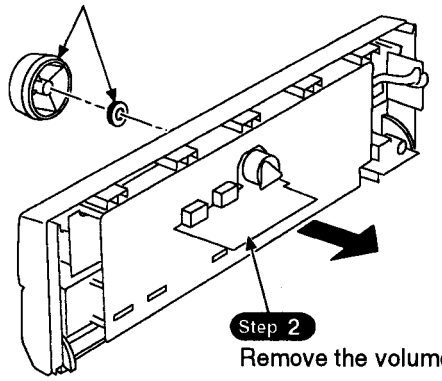
· **Check the main P.C.B. as shown below.**



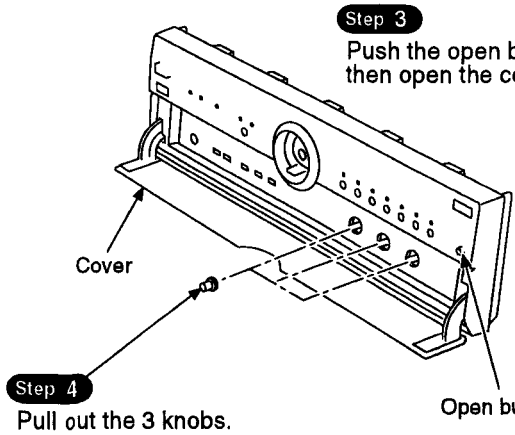
To remove each P.C.B.

- Follow the Step 1 ~ Step 3 of the item 1 in checking procedures for each P.C.B..
- Follow the Step 1 ~ Step 3 of the item 2 in checking procedures for each P.C.B..

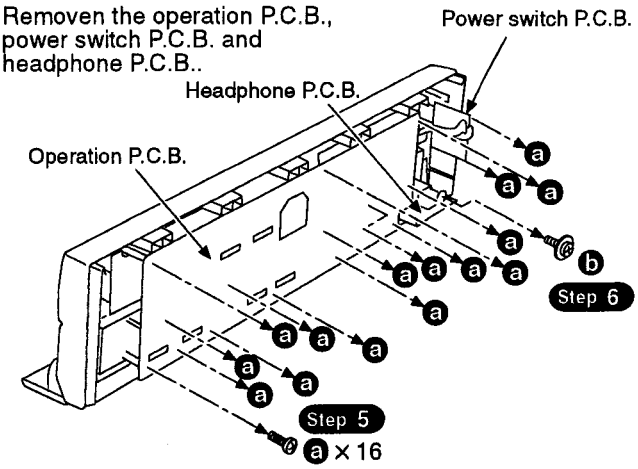
Step 1
Remove the volume knob and nut.



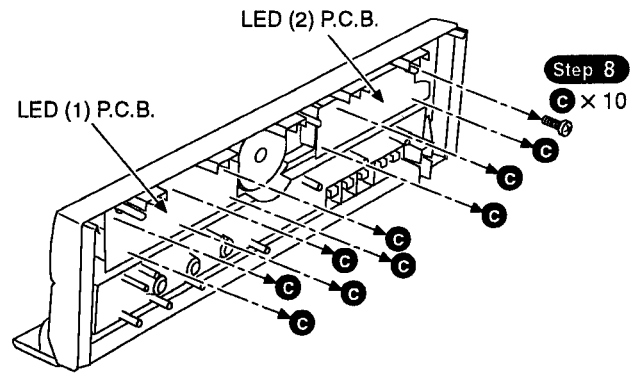
Step 3
Push the open button, and then open the cover.



Step 7
Removen the operation P.C.B., power switch P.C.B. and headphone P.C.B..



Step 9
Remove the LED (1) P.C.B. and LED (2) P.C.B..

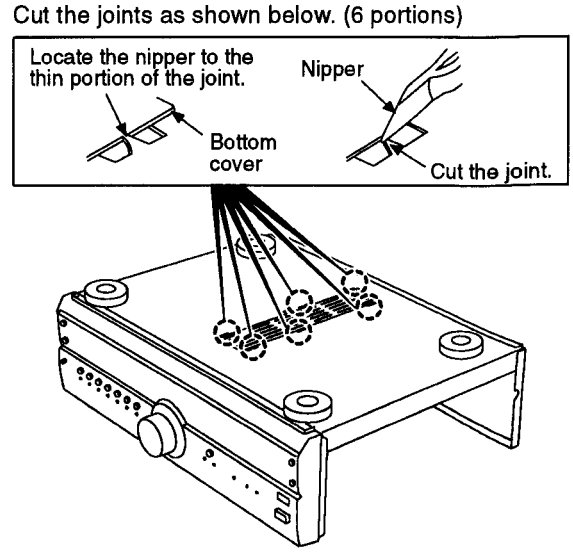


■ Main Component Replacement Procedures

1. Replacement for the power IC and regulator transistor

- Follow the Step 1 ~ Step 3 of the item 1 in checking procedures for each P.C.B..

Step 1
Cut the joints as shown below. (6 portions)



NOTE **1. This section describes procedures for checking the operation of the major printed circuit boards and replacing the main components.**

2. For reassembly after operation checks or replacement, reverse the respective procedures. Special reassembly procedures are described only when required.

3. Select item from the following index when checks or replacement are required.

• Contents

■ Checking Procedures for each P.C.B.

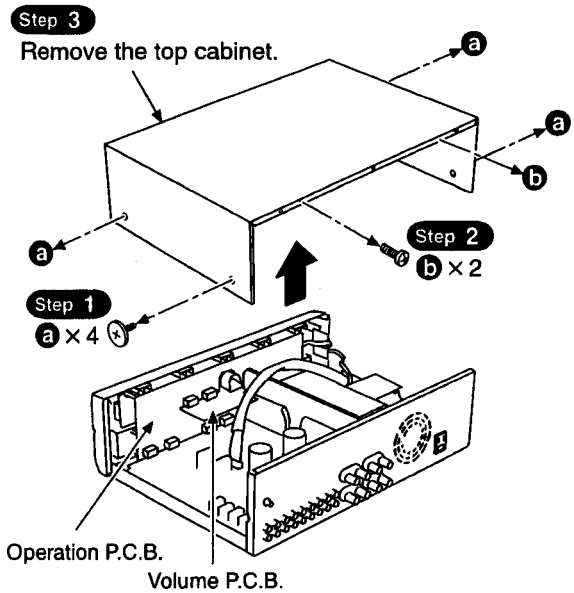
1. Checking for the volume P.C.B. and operation P.C.B..
2. Checking for the main P.C.B..

■ Main Component Replacement Procedures

1. Replacement for the power IC and regulator transistor.

■ Checking Procedures for each P.C.B.

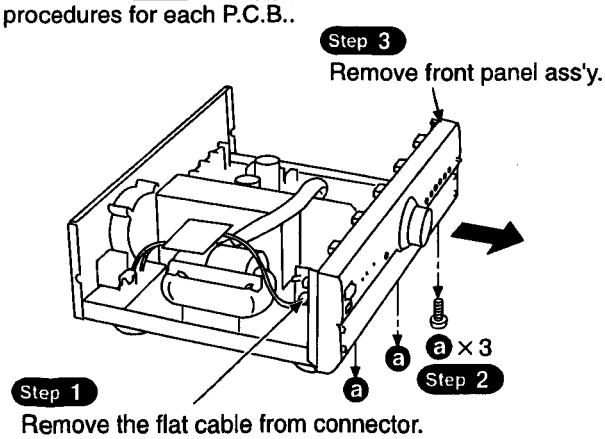
1. Checking for the volume P.C.B. and operation P.C.B.

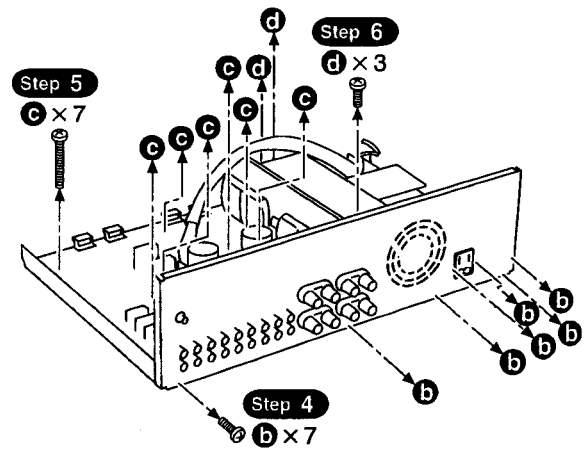


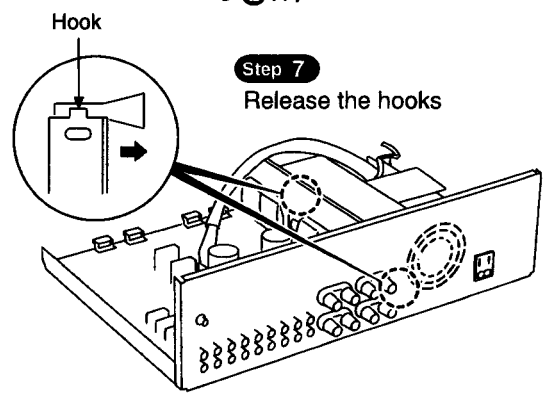
· Check the volume P.C.B. and operation P.C.B. as shown above.

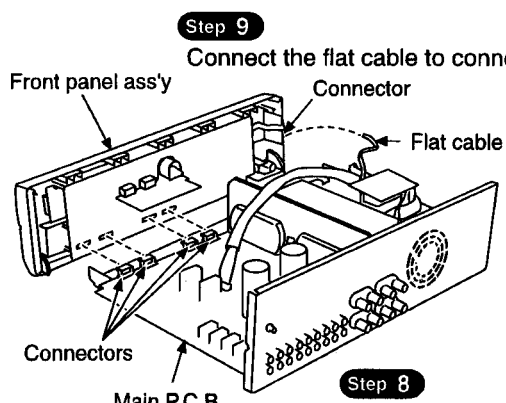
2. Checking for the main P.C.B.

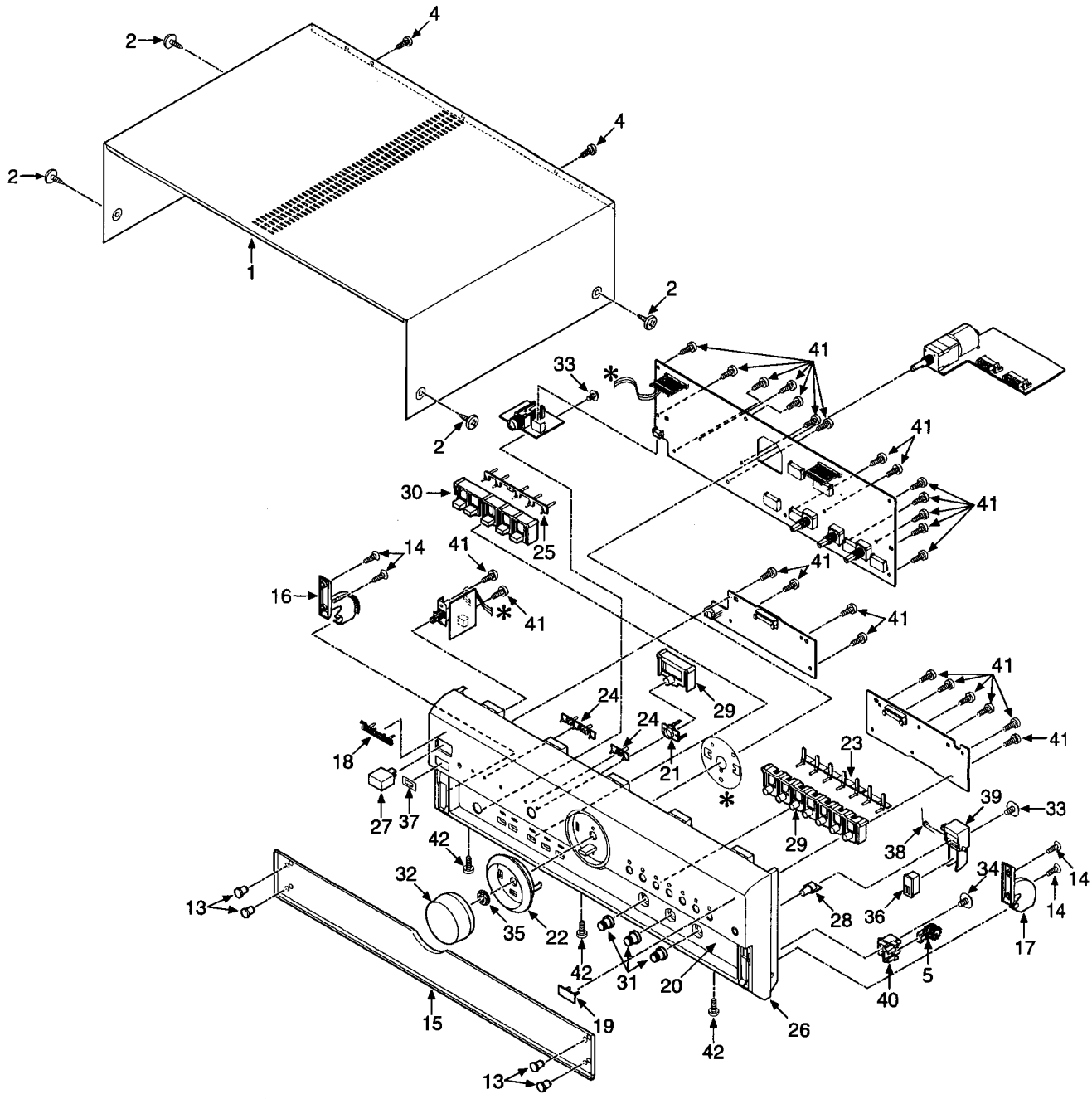
· Follow the Step 1 ~ Step 3 of the item 1 in checking procedures for each P.C.B..



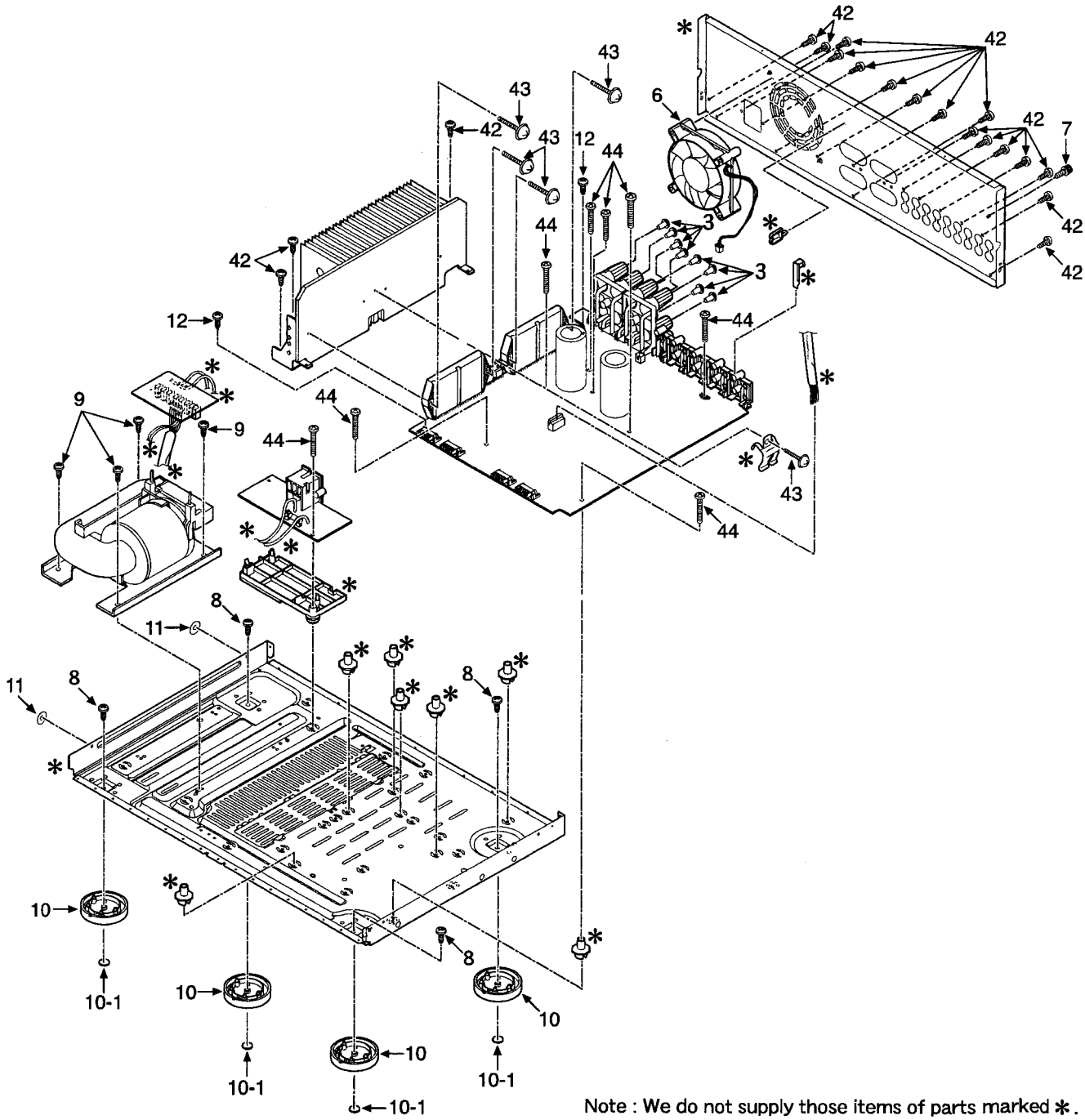






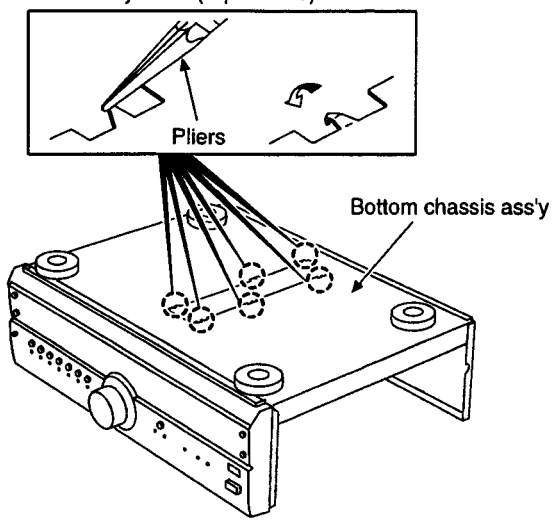


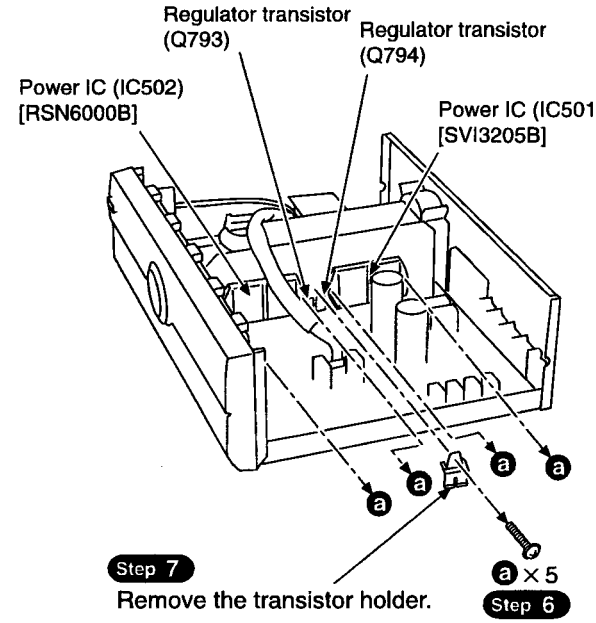
Note : We do not supply those items of parts marked ✻.



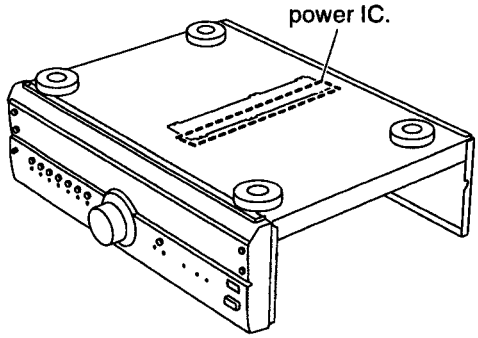
Note : We do not supply those items of parts marked ✻.

Step 2
Fold the joints. (6 portions)





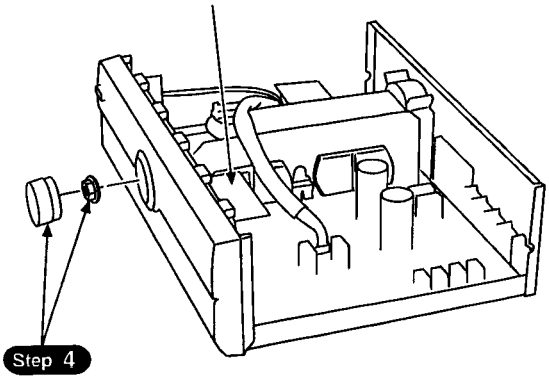
Step 3
Unsolder the terminals of power IC.



NOTE

1. After replacing the power IC or regulator transistor, apply a sufficient quantity of compound grease (RFKX0002) between the heat sink and the power IC or regulator transistor (Radiation of power IC or regulator transistor).
2. Tighten enough the screws (ⓐ) after replacing the power IC. Otherwise, the heat radiation works little.

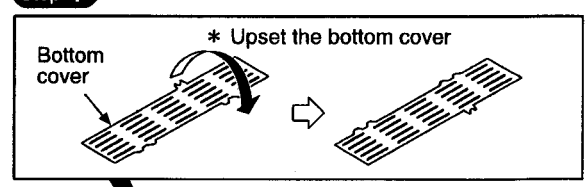
Step 5
Remove the volume P.C.B..

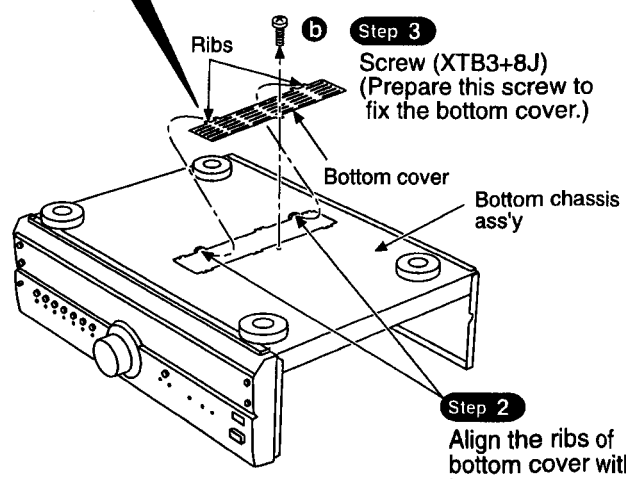


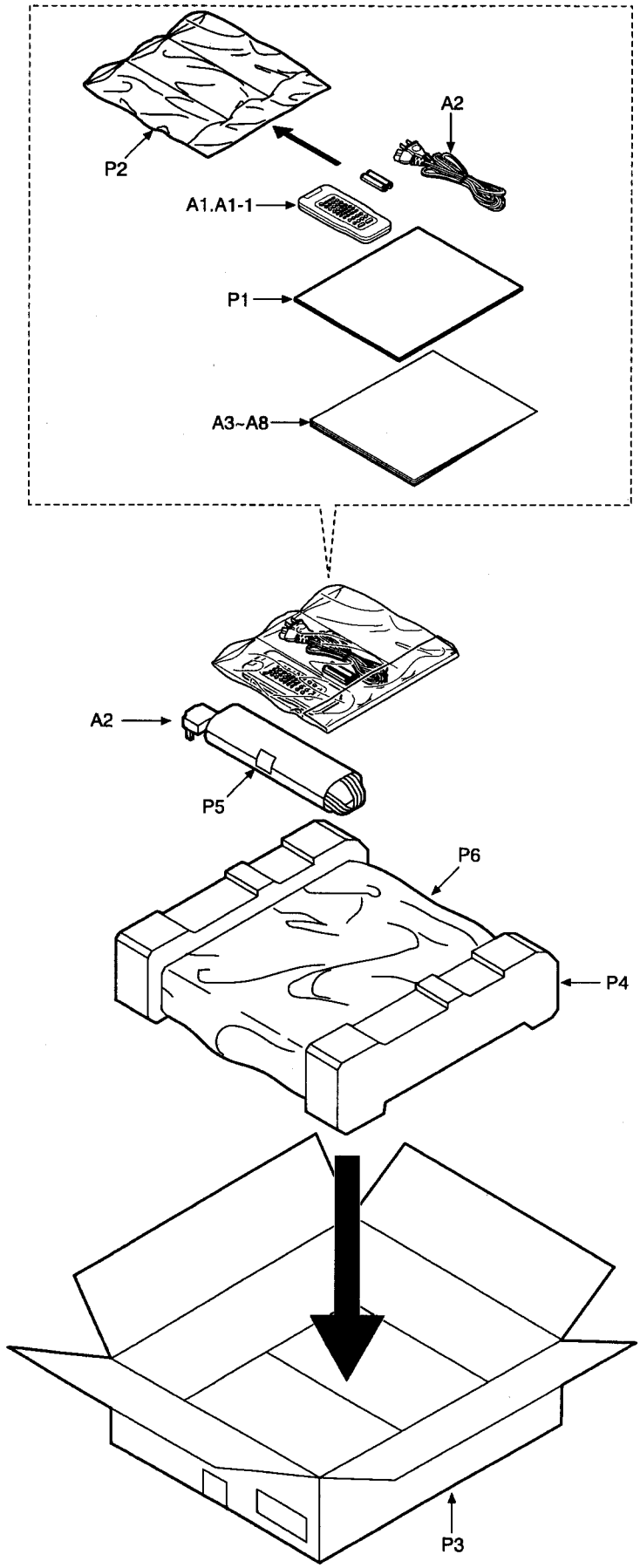
Step 4
Remove the volume knob and nut.

Installation of the bottom cover after replacement

Step 1






A2
P2
A1.A1-1
P1
A3~A8
A2
P5
P6
P4
P3

Specifications (DIN 45 500)

20 Hz – 20 kHz continuous power output
both channels driven: 2×45 W (8 Ω)
1 kHz continuous power output
both channels driven (THD: 1 %): 2×55 W (8 Ω)
2×70 W (4 Ω)
63 Hz – 12.5 kHz continuous power output
both channels driven (THD: 0.7 %): 2×50 W (8 Ω)
2×70 W (4 Ω)
Total harmonic distortion
rated power at 20 Hz – 20 kHz: 0.03 % (8 Ω)
Intermodulation distortion (50 Hz : 7 kHz = 4 : 1, SMPTE)
rated power at 1 kHz: 0.007 % (8 Ω)
Residual hum and noise: 1 mV
Damping factor: 60 (8 Ω), 30 (4 Ω)
Headphones output level/impedance: 540 mV/330 Ω
Load impedance:
A or B, BI-WIRING; 4 Ω – 16 Ω
A and B; 8 Ω – 16 Ω
Input sensitivity/impedance:
PHONO MM; 2.5 mV/47 kΩ
TUNER, CD, DVD, AUX, TAPE 1, TAPE 2/MD; 150 mV/22 kΩ
Phono maximum input voltage (1 kHz, RMS):
MM; 150 mV (IHF' 66)
S/N (rated power, 4 Ω):
PHONO MM; 75 dB (76 dB, IHF' 66)
TUNER, CD, DVD, AUX, TAPE 1, TAPE 2/MD;
102 dB (100 dB, IHF' 66)
114 dB (S=2 V, IHF A weighting)
S/N at –26 dB power (4 Ω):
PHONO MM; 74 dB
TUNER, CD, DVD, AUX, TAPE 1, TAPE 2/MD; 87 dB
S/N at 50 mW (4 Ω):
PHONO MM; 73 dB
TUNER, CD, DVD, AUX, TAPE 1, TAPE 2/MD; 81 dB

Frequency response:
PHONO MM; RIAA standard curve ±1 dB
(30 Hz – 15 kHz)
TUNER, CD, DVD, AUX, TAPE 1, TAPE 2/MD;
3 Hz – 100 kHz (+0 dB, –3 dB)
+0 dB, –0.3 dB (20 Hz – 20 kHz)
Tone controls:
BASS; 50 Hz, +10 to –10 dB
TREBLE; 20 kHz, +10 to –10 dB
Muting (remote control only): –∞
Output voltage:
TAPE 1, TAPE 2/MD REC OUT; 150 mV
Channel balance (AUX, 250 Hz – 6.3 kHz): ±1 dB
Channel separation (AUX, 1 kHz): 50 dB

■ GENERAL

Power supply:
For (E) and (EG) areas; AC 50 Hz, 230 V
For (EB) area; AC 50 Hz, 230 V – 240 V
Power consumption: 200 W
Standby; 1.5 W
Dimensions (W × H × D): 430×136×368 mm
Weight: 7.4 kg

Notes:
1. Specifications are subject to change without notice.
   Weight and dimensions are approximate.
2. Total harmonic distortion is measured by the digital spectrum analyzer.
3. For (EB) area: The specification values given have been measured while using a 240 V-power supply